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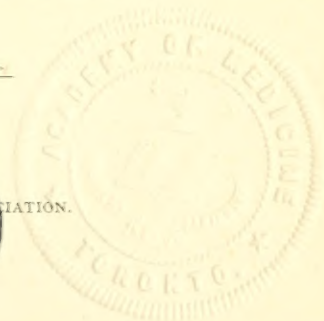
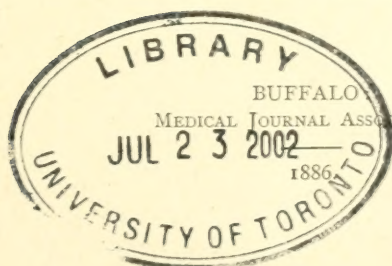
THE
BUFFALO
Medical and Surgical Journal.

EDITORS:

THOS. LOTHROP, M. D. A. R. DAVIDSON, M. D.

VOL. XXVII.

AUGUST, 1886, TO JULY, 1887.





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VOL. XXVII.

AUGUST, 1886.

No. I.

Original Communications.

THE BACILLUS OF TYPHOID FEVER.

SOME OBSERVATIONS ON ITS LIFE HISTORY — A SERIES OF EXPERIMENTS,
WITH THEIR RESULTS.

By GEORGE W. LEWIS, Jr., A. M., M. D.

Having recently completed a series of experiments upon the bacillus of typhoid fever, I will briefly describe the methods employed and their results.

The patient was a young man, 17 years of age, who had passed through the various stages of the disease with unusual severity. The symptoms of each stage were well marked, and there was left no doubt as to the diagnosis. During the third week, the case was complicated by capillary bronchitis; the patient dying six days later. The post-mortem confirmed the diagnosis, and immediately cultivation experiments were begun.

The cultivating media employed were food-gelatine, blood serum and the cut surfaces of boiled potatoes. I will say here that I made use of these media, not because they are the only ones in which micro-organisms can be artificially cultivated, but because they afforded a solid substance, in contradistinction to the many nutrient liquids which have been employed so much,

in years past, for this purpose. The advantage of the former is obvious, in that it enables the operator to obtain a pure culture in a comparatively short time, while the latter precludes the possibility of completely isolating any one particular organism. The assertion, which is so stoutly maintained by many anti-bacteriologists, that the myriad forms of bacteria are but stages in the development of one, or at the most, only a few species, seems to me to have grown out of the fact that they were unable to study the life-history of their cultivations, on account of the liquid character of the media. For example, suppose a drop of liquid, containing several kinds of bacteria, be introduced into a liquid medium; it is manifest that we have a mixed culture from the outset, and that all efforts to colonize the species would be in vain. It has been established, experimentally, that certain kinds of bacteria cannot develop in the presence of others, and that some require several days before their growth is perceptible, while others reach their maximum in a single day. Under these conditions, it is but natural that in the struggle for existence, the predominance of one form over another, especially the predominance of a pathogenic over a non-pathogenic, should result in the actual manifestation of disease. The tendency of all bacteria is to colony formation, and in liquid media this is rendered practically impossible. If, now, we can furnish a substance which will remain solid during the cultivating process, we not only act in accordance with a characteristic peculiar to all bacteria, but we are thereby enabled to study more minutely the various stages in their life-history, and, at the same time, render impossible the destruction of any of the existing forms of bacteria, because of their complete isolation.

Food-gelatine is best prepared by taking one pound of beef, as free from fat as possible, and chopping it into fine particles. Place it in a clean flask, and add one litre of distilled water. After shaking thoroughly, allow it to stand one night in an ice-chest. In the meantime, 100 test-tubes should be washed, rinsed with alcohol, and heated over a gas jet until thoroughly

dry. Fit a wad of absorbent cotton into the mouth of each tube, and again sterilize over a Bunsen burner until the white cotton becomes a light-brown. Subject the tubes now to a temperature of 150° C. in a hot air sterilizer for one hour. During this interval, the meat infusion should be strained through a towel of coarse texture. As a result of the straining, there is usually about one litre. If it falls short of this, enough distilled water may be used to make up the amount. To this red juice add 10 grammes of peptonum siccum, 5 grammes of common salt, and 100 grammes of best stick gelatine. A wet towel wrapped about the beaker will tend to prevent its cracking during the gentle heating, which must needs be given it in order to thoroughly dissolve the gelatine. The re-action should be slightly alkaline, and is best taken upon litmus paper. A concentrated solution of soda may be added, drop by drop, until the red litmus paper becomes faintly blue. If originally too alkaline, it may be neutralized by the use of a little lactic acid. The mixture should now be heated for three-quarters of an hour in a water-bath, and then filtered through a thickness of filter-paper, made in the form of a tunnel. The food-gelatine is now ready for the sterilized test-tubes, which should be filled to about one-third of their length. Placed together in a dish, they must be sterilized for twenty minutes for five successive days, at a temperature of 100° C. Any cloudiness of the nourishing medium may be corrected by adding the white and shell of an egg, beaten up together. Of course, this necessitates the pouring back of the nutrient gelatine into the beaker, and boiling as before, being careful to repeat all the sterilizing precautions.

On June 2d, I inoculated a tube of the gelatine with blood from an inflamed Peyer's gland, another from the spleen, and still another from a mesenteric gland. Forty-eight hours later, I took three more tubes of food-gelatine, and liquified them by allowing them to stand for a few minutes in a pan of hot water. I then inoculated, by means of a fine platinum needle, one of the tubes thus liquified with a single needleful of the growth

obtained forty-eight hours after the original inoculation. After gently shaking the tube in order to thoroughly distribute the organisms, I inoculated a second tube from the first; this time, however, dipping the needle in three times instead of once. This was done on account of the already attenuated form of the first inoculation. A still higher attenuation was made by inoculating a third tube with five needlefuls from the second. Merely as a confirmatory measure, I followed out the same process on the blood taken from the spleen and mesenteric gland. Each tube was labeled with its attenuation and source, and replaced in the pan of warm water to maintain the liquid state.

I then sterilized, over a Bunsen burner, several pieces of ordinary window glass, 6x8 inches, and, in handling them afterwards, was careful to use thoroughly sterilized forceps to prevent my fingers from coming in contact with the plates. Two soup plates and two Bell jars were washed in sublimate solution, (1 to 1,000,) and after lining the soup plates with three or four thicknesses of filter paper, saturated with the same solution, I placed three of the sterilized glass plates, one upon another, with intervening bridges, and covered the whole with a Bell jar. The tubes, to be called for convenience 1, 2 and 3, which have been inoculated from the tube containing the original blood, were then poured upon the sterilized glass plates, No. 1 upon the first plate, beginning from the bottom, and so on, up. Care was taken to spread the gelatine evenly with a sterilized glass rod, so that it might become uniformly hard. The Bell jar was replaced and labeled with the details of the experiment, after which it was deposited in a shaded part of the room, to favor, and hasten somewhat, the colony formation.

At the end of twenty-four hours, colonization was detected only by using a magnifying power of 100 diameters. Plate No. 1, moreover, was the only one which manifested any trustworthy signs, even at the end of thirty-six hours. The predominating colony at this time was nothing more than a yellow-

brownish speck, almost circular in form, and exhibiting in parts the so-called saw-edged appearance. A large proportion of bacteria liquify the gelatine as colonization progresses: this organism, however, does not, and this accounts in a degree, I think, for the somewhat longer time required for the satisfactory detection of the colonies. At the end of forty-eight hours, plates No. 2 and 3 showed a few colonies, and at sixty hours, although not very numerous, they were plainly visible to the unaided eye.

I then placed plate No. 1 upon the stage of the microscope, and with a fine platinum needle, slightly bent at the extremity into a miniature hook, and with the hand steadied by resting the little finger on the stage of the microscope, I fished a hookful out of the centre of one of the characteristic colonies. This procedure was accomplished under a magnifying power of 100 diameters. Immediately I inoculated a tube of fresh food-gelatine with my "catch," and would naturally expect as a result a pure cultivation of the organism. I also made several cover-glass preparations from a "catch" obtained in the same way from a similar colony, and colored them with a watery solution of fuchsin. A far more satisfactory, although somewhat longer, method of staining is with Bismarck brown, either a concentrated or a watery solution. This bacillus does not take an aniline staining at all easily.

I was now prepared to study the organism itself, and found several extremely interesting peculiarities, not only in its manner of growth, but in its individual appearance. The ends are blunt and rounded, and I detected a slight constriction in the middle where the organism measured 2-10 of a mm. in breadth. They commonly arrange themselves in filaments, sometimes extending across the entire field. Spore formation was present to a greater or less extent in all the preparations, and was always noticed at the ends of the rods. The threads were very active until overcome by the coloring material.

In the course of twenty-four hours, the inoculation streak in the test-tube of food-gelatine became visible, and, at the end of

forty-eight hours, a distinct whitish growth had developed. Solid blood serum affords a most fertile soil on which to cultivate the bacillus of typhoid fever. It is prepared in the following manner: After thoroughly washing several glass jars with sublimate solution, (1 to 1,000,) and then with alcohol, they should finally be rinsed with ether. This evaporates and leaves the jars ready for use. I think on many accounts the sheep is the most accessible, and withal the best, animal from which to draw the blood. The part selected must be washed with sublimate, and the operation conducted with sterilized knives. It is better not to make use of the first show of blood. The vessels should be filled nearly full, and the glass stoppers replaced as soon as possible. In order to hasten the separation of the clot, the jars may be placed in an ice chest for thirty-six hours. The clear serum can then be poured into sterilized test-tubes, prepared in the same manner as for food-gelatine. Only about one-third of the length of the test-tube should be utilized. They must now be subjected to a heat of 58° C. for one hour in the Koch sterilizer. This is repeated for six days, the temperature on the last day being gradually raised to 60° C. In order to thoroughly solidify the serum, the tube must be allowed to rest at an angle of say 30° , thus spreading the serum over a greater surface. After being heated occasionally at 68° or 70° C., the serum is characterized by being hard, transparent, and of a color resembling straw.

To inoculate the blood-serum, the same instruments and precautions are needed as with food-gelatine. A fine platinum needle, thoroughly sterilized, is dipped into a pure culture, and then drawn in streaks over the solid serum. After thirty-six hours, a whitish and somewhat elevated layer makes its appearance. This continues to increase until almost the entire surface of the serum is covered.

The cut surface of a boiled potato is a suitable culture medium for almost all bacteria, and so was tried in the case of this organism. The potatoes should be sound and have few "eyes;" and after soaking for one half hour in sublimate solution, the

eyes should be carefully removed with the point of a knife, and the whole potato scrubbed with a brush. They are then cooked for three-quarters of an hour in the steam-sterilizer, and should be allowed to remain there until needed for use. Several Bell jars are then washed in sublimate solution, and placed in as many soup-plates, lined with filter paper and saturated with the same solution. Knife-blades, for the purpose of cutting the potatoes in halves, must be well sterilized over a Bunsen burner, and every precaution taken not to touch the cut surface of the potato with the fingers. Once sterilized, the blades must be carefully watched, lest they come in contact with some unsterilized medium. After cutting the potatoes, they are to be placed upon the damp filter paper, under the Bell jar, with the cut surface up. At the end of thirty-six hours, there was a luxuriant growth of a whitish color. The temperature best suited to its development on potatoes is 98.6 F.

Of six mice and two rabbits inoculated with a pure culture of this organism, four of the mice and both of the rabbits died inside of nine days. The only pronounced symptom—and this was common to all except one rabbit—was the constant and exhausting diarrhœa. Upon examination, no marked changes were detected in the spleen or in any of the intestinal glands.

GRAVES' DISEASE.*

By WILLIAM C. BAILEY, M. D., Albion, N. Y.

Member of Orleans Co. Medical Society; Central New York Medical Society; New York State Medical Association; American Medical Association, etc.

In a lecture delivered before his pupils a few years ago, Dr. Jacobi observed, that so rare is exophthalmic goitre, and so comparatively few have been the cases reported especially among youth and children, the history of every one should be presented to the profession. Then, as regards disease not witnessed in every-day practice, it is well, occasionally, to refresh ourselves with the symptoms and the various forms in which they may be met. Too rarely has consideration

*Read before Central N. Y. Medical Society, Rochester, May 18, 1886.

of this subject been urged before medical societies. It is liable to occur in practice at any time, in a variety of ways, and due to a variety of causes. In its incipient stages, especially, a mistaken diagnosis and too grave a prognosis may readily be made. One is apt to become more interested in a problem of mathematics undemonstrated than in one which, to him, is plain and simple. Having solved one, he calls for another. Thus it is in studying disease. The physician attends such gatherings as this, not only to learn of new things regarding cases he commonly meets, but also, that he may at least receive an impulse to study more fully something in his art not altogether understood—some problem not so near solution as others.

The history of a case illustrating the manner in which exophthalmic goitre may present itself, is as follows :

Miss A—— is the sixth in a family of children of that number, whose parents were of strong, sturdy, English and Irish extraction. No hereditary taint can be found; but an older sister had bronchocele, which developed when she was fourteen, and disappeared after about four years. At the age of thirteen, Miss A—— applied to a local physician for advice in reference to a swelling of the right thyroid. The doctor remarked to her, during examination, that she had the fastest pulse he had ever known in one able to be about. He advised hospital treatment, and predicted serious results. In two months, she called again. He found the same condition, and gave the same advice. No medicine was prescribed or taken. Feeling well, and supposing the enlargement to be simple goitre, which would disappear as in her sister's case, she attended school, studied hard, developed well, with organs normal, and weighing over 130 pounds. Her mother recalls, however, even before the appearance of the goitre, that running, or any violent exercise, would produce palpitation noticeable at a distance. Such was her condition, when, three years later, she contracted a severe cold, and Feb. 6, 1885, sent for medical aid. The writer found her very ill with marked lung congestion, and

coughing almost incessantly. T. 103° , R. 28, and P. entirely imperceptible in the wrist. By aid of the stethoscope, a valuable means of obtaining an accurate count in great rapidity, the pulsations were found to be 168. This, with the other symptoms and extreme weakness, alarmed me, and my anxiety was communicated to the family. Treatment was directed toward relieving lungs and cough, giving nourishment and plenty of stimulants. Next morning found her presenting the same general characteristics, save that the cough was less, and the T. had fallen one degree. R. 28, P. 168, and still no throbbing in the wrist. The extremities cold and clammy yesterday, were colder and bluer to-day, and to prolong life seemed scarcely possible. The stimulants were increased, warmth thoroughly applied, and toward night she was seen again. The following day there was slight improvement observable, and this now gradually progressed, so that, Feb. 17th, the temperature was $99\frac{1}{2}^{\circ}$, the lung congestion had yielded, the appetite had returned, and much strength had been gained: but the pulse remained the same, ranging from 164 to 190, was weak, and no trace could be detected in the radial. The extremities were cold and apparently bloodless until the 23d. Now, for the first, the temperature was normal, and so remained. All symptoms were better; the pulse 168, and felt slightly in the wrist. Stimulants were lessened as she improved. Their value in this case could not be over-estimated; they were essential and highly beneficial. There was no gastric difficulty, and food was readily assimilated. No nervous disturbance was apparent at this time, nor afterward—a very unusual exception in this affection. Although the heart beat at the enormous rate indicated, she complained of no choking, no palpitation, no indication whatever of cardiac disorder; nor could there be heard, at any time, abnormal sounds. The congestive disturbance having lessened, with no reduction in pulse, the writer looked elsewhere some days before to account for it. Her history, the enlarged thyroid, the absence of organic indications in the heart, *the fact that she could recover*

from a serious illness with such a heart-pulsation, compelled me to recognize a clear case of Graves' disease, its inception dating back four years nearly, and now aggravated by the present lung-affection. Yet there were noticeably absent many diagnostic signs. Measurement of the neck was, at this time, sixteen and one-half inches; much less, she said, than formerly.

Feb. 27th, she first sat up, but soon fainted. Pulse was 94, irregular, strong and intermittent. The stethoscope revealed only the peculiar diagnostic thrill in the thyroid, which Dr. Hammond likens to the sensation felt when stroking a purring cat. Vomiting was severe, the extremities were cold, the face was deathly white, dyspnœa was marked, and there was great pain in the epigastric and cardiac regions. As she rallied shortly by the aid of stimulants, the pulse increased in rapidity, and was soon again 166. These attacks curiously recurred periodically every one or two weeks for about five months, and then disappeared.

As she grew stronger and could sit up, the heart's action gradually increased, and, March 13th, now readily found in the wrist, was as follows: Lying, 157; sitting, 166; standing, 192; walking to window, 212. With this marked difference, I advised rest in the recumbent position, but she was as full of fun and mischief as a boy, and would not remain quiet. The appetite, too, was excessive, a not unusual accompaniment in this disease. Following was the amount taken March 12th: Six pickles, ten slices of bread with butter, two biscuits, two tea-cupfuls of mashed potatoes, and one of pot-pie, one piece of meat, four inches square, one ounce of maple syrup, one apple, two quarts of tea and milk, one pint of water, six ounces of whiskey, and two of olive oil. This was a daily average, which I unsuccessfully attempted to correct.

There was not observable, at any time, the slightest exophthalmia, but considerable dilatation of the pupils was present for some months. The pulse remaining unchanged under the action of iron, aconite and largely increased doses of digitalis, the two latter were dropped, and veratrum was begun

April 3d. By May 20th, this had reduced the heart-beat to 105, but, on account of nausea and distress which it produced in necessarily increased doses, it had to be suspended. The pulse in a week was 192, once over 200. The veratrum, again tried, had no appreciable influence, possibly because only the smallest doses could be given without disturbance. It was then decided—Dr. Kittinger, of Lockport, and Dr. Squier, of Albion, examining the case about this time—to employ electricity, and following were the observations made the first time it was used: Continue iron in form of dialyzed. Came to office, walking two miles. Before sitting, the pulse was 198; after sitting five minutes, 168; after sitting one-half hour, 145; after reclining on couch ten minutes, 138; measurement of neck, $14\frac{3}{4}$ inches; weight, 112 pounds; feels very well; sleeps ten hours in each twenty-four. The Farradic interrupted current was used five to twelve minutes at a sitting, once in two or three days, gradually increasing length of *séance* to twenty minutes, and the number of days to five or seven. The anode was placed under the angle of the right jaw, and the cathode above the seventh cervical vertebra, according to the very successful method of Dr. A. D. Rockwell, of New York. Finally simple, general Farradization was shown to be even better, the temporary reduction of the pulse not infrequently being twenty beats per minute. Twenty-eight treatments were all that were given, with these results, noted November 1, 1885: Neck measurement, $13\frac{3}{4}$ inches; slight glandular enlargement still remains; pulse, 110; weighs 137 lbs. May 15, 1886: Has taken no medicine or treatment since last November; pulse, 92; is well and doing work at home for seven.

This affection is not wanting in names. They have varied according to supposed causes, as chlorosis, anæmia, struma, etc. It is most commonly known as Graves' or Basedow's disease, and exophthalmic goitre. Soelberg Wells suggests aneurysmatic bronchocele, and Walshe, cardiothyroid-exophthalmos. The last seems most appropriate, and the writer would make a plea in favor of its adoption. Here the three cardinal

symptoms are recognized, and in their order of prominence. In "exophthalmic goitre," the name is defective, as it does not include that which is the first to appear, and the one almost never wanting, namely, the increased action of the heart; and it makes most prominent the exophthalmos, which is usually the last to present itself, and the one most frequently absent.

Flajani, Parri and Stokes described cases having the main symptoms of this disease most prominent, but Graves, of England, in 1835, and Basedow, of Germany, about the same time, were the first to recognize an individual affection. It is found mostly among adult women, rarely under the age of fourteen, or after middle life; but advanced age, men, and children are not entirely exempt. Some have regarded it as simply a cachectic condition; others have given a mechanical explanation of the phenomena; but it is now generally considered to be a neurosis, due to sympathetic irritation, principally in its cervical portion. "As the cardiac plexus governs the action of the heart, and the cervical ganglia of the sympathetic the branches of the carotids, any impairment of these centers would naturally produce dilatation" of the respective parts which each may control. This has been proven to be true from experiments by Goltz and others. For example, "section of the cervical sympathetic will cause dilatation of the vessels of the head and neck, and some protrusion of the eye-balls;" and galvanization, or irritation of the cervical end of the sympathetic, Stokes claims, will produce hypertrophy of the heart. The dilatation of these vessels we naturally would expect from vaso-motor paralysis; but Goltz has proven "it may be also due to irritation of the fibres of the sympathetic, which, when stimulated, will dilate blood-vessels," and this, says Jacobi, "best explains the symptoms belonging to the heart, and also to the unstriped muscles in the orbit and eye-lids." Some consider that the three cardinal indications have separate centers to be affected. This theory receives some confirmation in their want of relation to each other. Any may be absent, and those present may vary in severity as much as it is possible to do so. Dr. Russell's

deductions in this respect are of great interest. "Of twenty-three cases, goitre was absent in six; of these six, palpitation was extreme in four, and proptosis existed in a great degree in one, was absent in one and moderate in the others. In four of the twenty-three, proptosis was absent. In one of these four, goitre was absent; in three, it was of large size; in three of the four, palpitation was severe; in one, moderate. The heart symptoms were present in various degrees in all of the twenty-three cases. In one with the proptosis absent, there was lachrymation; in three others, dilatation of the pupils; in two of these, the heart symptoms were severe; in one, the goitre was large." Dilatation of arteries and veins has been found in all parts of the body. The thyroid shows great development of blood-vessels, "interlacing with each other so as to distend it as water distends a sponge." There may be, but not usually, infiltration. Thus it is seen to differ from true goitre. One writer says: "At the point of development into bronchocele, it ceases ordinarily in exophthalmic goitre." But it is not supposed to be necessary that this irritation of the sympathetic shall be due to real structural lesion, for a limited number of post-mortems shows it is not always present; therefore, it may be purely functional, and such must be the condition of those who recover; so, if we may judge from the few fatal cases recorded, a small minority only has organic lesion. This division may, then, place the disease under two classes, the one due to organic change in the sympathetic; the other, to functional irritation. But we should not forget that there *may be* structural lesion in nerve cell, or fibre, beyond the power of detection by the most powerful microscope; and that "the proliferations of connective tissue, or the gray infiltration found in the ganglia, or the enlargement and thickening of the cervical sympathetic," as recorded by Jacobi, *may be* the result of the disease, and not the cause. Lesions are not found in these parts alone; the main branches leading to the inferior thyroid and vertebral arteries, the brain, spinal cord and medulla, have been involved.

Ushered in from almost all causes of a neurotic character, often succeeding or accompanying some disorder indicating debility, occasionally, however, occurring suddenly from shock or traumatic origin, Graves' disease is recognized by what Hammond calls "the great pathological trinity"—three distinct and prominent symptoms, which, in their usual order of appearance, are palpitation of the heart, enlargement of one or both thyroid glands, and protrusion of the eye-ball. All may be present, and one or even two may be absent. Russell describes a case of the latter. There may be years or a few hours between their appearance, and either may present itself first. It may run its course very shortly, as in Solbrig's case, where "ten days were sufficient for its inception, progress and complete disappearance;" or, as in another case, it may be more or less severe for over thirty years; or, it may disappear only to return. Again, this triad may be, one or all, scarcely noticeable or extremely severe. There may be every variety and phase in this respect. The heart may palpitate slightly, or at a wondrous rate, with murmurs and abnormal sounds, with hypertrophy or dilatation, and pain and distress. The goitre may be small or large (Prael records one as having weighed a pound); or, it may even vary from day to day, or pulsate like an aneurism, "with thrills and numerous whirring noises." "It may be painful or painless, soft or hard, compressible or not." The exophthalmos may produce simply a stare, or even lie upon the cheek and burst. But there are symptoms which usually accompany this trinity, some diagnostic, and an endless variety of others, according to each individuality. Nervous impairment in some form is usually present, from insanity and epilepsy and mania to the mildest hysteria. "The radial pulse may be several beats per minute less than that of the heart," on account of feeble and unequal contraction of the latter. "Peripheral dilatation of the blood-vessels may occur, with a vibrating pulse in the meta-tarsal or the palmar arch." The heavy beatings of the heart may shake the whole frame. The gland itself,

generally, pulsates synchronous with the heart, and it may be filled with various sounds that are a source of annoyance in the sufferer's ear. Another indication is disassociation of the upper eyelid with the corresponding ball. When one looks down, the lid naturally falls in unison with the ball, but in Graves' affection the ball may move, and the lid remain, or move but partially. The exophthalmos may often, by gentle pressure, be returned to its normal position, but it will remain only so long as the pressure is continued. A more frequent characteristic, perhaps, than is generally recognized, is dilatation of the pupils, especially in the absence of the proptosis. Dyspnœa, fainting, choking, lateral or general profuse perspiration, œdematous extremities, vomiting, excessive appetite or aversion of food, diarrhœa, hemorrhage, and periods of excitement due to the heart's action, are symptoms common to this affection; yet one may be remarkably free from any or most all of these. We can but wonder at the amount of apparent disturbance to the system in a case, for example, like that related, with a heart-rapidity of more than twice its normal work, and still remain so free from its influence. In fact, we may regard such as pathognomonic.

This disease is frequent in families having ordinary bronchocele. One sister of my patient had it. Of another, related by Greenamyer, the mother died of exophthalmic goitre, and five sisters had bronchocele, the youngest being born with it. Such cases are not few, and have led some to regard the one as being occasionally resolved into or supplanted by the other. I must confess, it is difficult to discard all belief that there exists an entire want of relationship between those two affections. In no less than ten recorded cases, I find both diseases co-existing in the same family. An interesting article might be written upon this subject.

Dr. Ely, of Rochester, having recently inquired whether it might be merely accidental, that the most severe cases he or his father had seen during the last twenty years were from this, Orleans county, the writer has taken occasion to communicate

with those physicians longest in practice here, in regard to their experience. They recall eleven or twelve cases, but there have doubtless been more. One dates back nearly twenty years. Most of the others have been quite recent. Several physicians have never treated any. Of the number referred to, all have been quite marked; most have been severe, and at least three have died, one within a few months. One proved nearly fatal. The goitre was large, the pulse averaged 140, and the proptosis was so severe as to cause bursting of one of the balls. Dr. Rider enucleated both globes. This operation resulted in perfect restoration to health, an increase of thirty or forty pounds in weight, and complete relief from all symptoms of the disease, which were seriously threatening her life. A permanent enlargement of one gland remains, which causes no inconvenience. It is hardly possible there could have been real structural lesion here. Two cases of the above were significant in the fact that both, after suffering long, removed from the county, and began almost immediately to improve, finally recovering without medical aid. One, a very marked case, related to me by Dr. T. R. Bamber, of Carlton, was under treatment of various kinds at least six years. Two or three years after moving away, she was well. She declares it to be due to "change of location." The other, a young lady seen by Dr. John Taylor, of Holley, was gradually growing worse; but, after quitting the county, in a short time apparently recovered, and is now married. She was under no treatment here. There are no statistics to indicate that climate influences this disease, or tends to produce it, nor is the climate of this county known to vary materially from that in many others of the state; but the per cent. of carbonate of lime in the wells and springs throughout this section is unusually large; in some, extraordinary. The average in fourteen analyses, recently made in various parts of Albion, was twenty per cent. We may have no reason, however, to attribute any influence to such causes.

As regards treatment, the therapeutics of Graves' disease

have, until recently, been more or less uncertain; due, principally, to the imperfect understanding as to its pathology. We have to deal with irritation of the sympathetic (accepting that theory,) dilatation of the blood-vessels, and symptoms resulting therefrom, a general neurotic condition, and the special indications of each individual case.

Resulting from experience and experiment, galvanization of the sympathetic and its cervical ganglia must rank first and most successful—not, however, overlooking any accompanying symptoms requiring relief. Upon the same theory, and from experience and observation, digitalis, iron, ergot and aconite are almost equally important. Some prefer strychnine with other remedies—one, lately, hydriodic acid; and one case was reported as cured on milk. If there be a scrofulous diathesis, iodide of iron is excellent; otherwise, the dialyzed cannot be improved. Often the bromides form an important factor, and extirpation of the glands has, in a few extreme cases, been performed. There should be a nutritious diet maintained, and an avoidance of excitement and over-exertion, with plenty of rest and pure air and water. The main factor, however, contributing to successful treatment, as Dr. Rockwell says, is *persistence*,—persistence on the part of physician and patient. Understanding the usually accepted explanation as to its causes and the general basis of treatment, we must study the individual peculiarities, and select those remedies most applicable and best agreeing; and then, for a time, adhere with bull-dog tenacity, not looking for amelioration too soon.

So diversified are the cardinal symptoms in different cases, so varied their appearance and progress, the writer has collected the histories of as many as could be found, and deduced an average result in the main particulars. The number collected, many of which are incomplete, amounts to *two hundred and thirty-one*. It is from these reports that the writer has largely drawn in the preceding pages.

In this number, there were 197 females and thirty-four males, a proportion of six to one. This agrees with Gräfe. Flint places

it higher, Ziemssen lower. Age was mentioned fifty-five times, the average being 27.7 years; youngest was two and one-half; oldest, sixty-six. Average of males was thirty-two and one-half years; youngest, fourteen; oldest, fifty-three.

Forty-seven reports made special reference to nervous complications. In thirty-one, or two-thirds, they were most prominent.

The *usual* pulse was mentioned thirty-two times. Seventy-four was the lowest given; 180, the highest; the average was 119. This does not include extremes, some of which could not be counted.

The time between the appearance of the first and second symptom of the triad, in fifteen cases given, averaged nearly two years, and varied from a few hours to thirty-one years.

As to the glandular swellings, one or both, nineteen specify. In ten, the right only was involved; in five, both; in four, the left.

In the 231 cases, dilatation of the pupil was mentioned four times. Hammond saw "a few." Russell records three in twenty-three.

In seventy-two, the first symptom^f noticeable was designated. In sixty-three, it was palpitation, or about six-sevenths. In eight, the goitre, or about one-eighth; and in only one, reported by Bartholow, did the proptosis first appear.

Of their absence, palpitation was wanting in only five. In eighty-one cases, ten had no goitre. In fifty-six cases, proptosis was absent ten times.

I can find but five fatal cases reported, not including sixteen post-mortems, where the history of the disease was not given. Of the five, one was by Trousseau, one by Greenamyre, one by Constantine Paul, one by Hammond, and one by Thomas; so it is safe to assume that a goodly majority, at least, of the 231 recovered partially or completely. Twenty are specified as having but partially recovered, and fifty-three completely. In nearly all of those improved, with the glands involved, more or less permanent enlargement remained. In only four did a serious

heart complication follow; and as to the results of the exophthalmia, unfortunately, none are mentioned among the recoveries, save in a general way. How many resulted in partial or complete loss of sight, it would be interesting to know.

REPORT OF A CASE OF CHRONIC ENDARTARITIS.

By SIMEON TUCKER CLARK, A. M., M. D.,

Professor of Medical Jurisprudence in the Medical Department of Niagara University.

About 9 o'clock, P. M., June 2, 1886, I was called to see Miss H., aged 33 years, and found she had just rallied from a fainting-fit, so complete as to render her insensible for five minutes. This attack had been preceded by intense pain in the right arm and hand; continued the entire day. She very properly attributed her syncope to this agonizing pain, which was still almost unendurable, and did not completely yield to large and repeated doses of morphia.

On the morning of the 3d, the next day, I found the right fore-arm cold and discolored; the right hand without sensation or motion. There was no pulsation of the radial artery.

The next day, June 4th, the hand was mummified and the fore-arm in a state of acute gangrene, the line of demarcation being sharply defined.

From Miss H., and her father, I obtained the following history: At the age of four years and upwards, calcareous concretions began to be deposited in the joints of the phalanges; and, when about fourteen years old, the right wrist and elbow-joints were almost ankylosed; the little finger of that hand was but partially developed, and remained so.

Miss H. had never been of robust health, but, for the most part of the time, did not complain.

The past winter she suffered much from neuralgia, mostly confined to the right side, but occasionally had brief attacks of *angina pectoris*, always attended with faintness and difficulty of breathing. The last four menstrual periods had been attended with great distress, and all the blood discharged was in clotted

masses ; in some instances, from her description, complete casts of the uterine cavity were expelled, red in color, and of the consistency of modeling-clay. At these periods, she described her sensations as peculiar ; loss of vision, of short duration, but frequently repeated ; partial aphasia, vertigo and loss of co-ordination in the right arm and fingers, palpitation, and not unfrequently a sluggish movement of the heart. For the last two months, had a feeling as if her head was of wood, or not a part of herself, and had lost consciousness for a moment on several occasions. Had not been warm this spring, and suffered greatly from cold all last winter.

Careful examination failed to furnish any physical signs of organic change of the heart or aorta, but feebleness of cardiac impulse and retarded pulse-wave were observed.

On the 5th, Dr. Wm. B. Gould was called in consultation, who verified my diagnosis of acute gangrene from endartaritis, and informed Miss H. that she would be forced to lose her right arm to preserve her life.

June 7th, Prof. W. S. Tremaine, M. D., of Buffalo, was called to see the case, and gave us the benefit of his large and varied surgical experience and ripe judgment. He advised early amputation, but gave an unfavorable prognosis. On the afternoon of the 9th, I amputated the right arm at the junction of the middle with the upper third, making a circular operation. The tissues at this point were warm and of normal color, although the brachial artery did not pulsate ; in fact, there was little need of a ligature. Drs. Gould, Foote and Outwater, who assisted me, hoped sufficient blood supply would be obtained from the posterior circumflex and subscapularis arteries to enable the stump to heal. The night after the amputation, was the most comfortable she had passed since the acute invasion.

The evening of June 10th, or twenty-four hours after the operation, I observed that pulsation had ceased in the right subclavian artery, and my patient was very restless. She now complained of general numbness and coldness of the right side, and occasional cramps in the fingers of the left hand.

At 9 A. M., June 11th, pulsation was almost wanting in the left brachial artery, and the left fore-arm was becoming mottled. Temperature, 105° , restlessness increased, and thirst tormenting. This condition advancing, in spite of liberal nourishment and stimulation, gave little hope of re-action. About 4 P. M., fluids swallowed provoked nausea, and the feet became cold, although artificial heat, both wet and dry, was persistently applied. At 6 P. M., death occurred. Intelligence was perfect to the end.

This case presents many points of interest, but is sadly deficient in our failure to obtain an autopsy. The amputated member was carefully dissected. Much to my surprise, the stiffness of the elbow-joint was not due to calcareous or ossific deposits, but to products of inflammation—bands of adventitious tissue crossing each other in every direction, seeming, in the almost complete destruction of the anatomy of the parts, to be the products of a fatty degeneration, the sequellæ of an acute inflammation.

The *radial* artery was so changed, as to be with difficulty distinguished from the radial nerve, which it closely resembled, its lumen being obliterated and having become a white lusterless cord.

The deep palmer arch was destroyed, except a portion of the *superficialis-volæ*, which was in a state of acute inflammation, and served to connect the two arches in an imperfect manner.

The *ulnar* artery was filled with a substance resembling brick-dust, finely powdered, mixed with oil and closely packed; this substance was identical in appearance with that which filled the *brachial* artery. All those arteries which I was permitted to examine, presented no change of the internal coatings, if we except unusual redness. There were no superficial elevations or atheromatous patches. On the contrary, the external coats were inflamed, thickened, opaque, and in some parts sclerosed; and, although their canals did not seem lessened in diameter, they were completely plugged throughout their whole extent. Of course, this does not refer to such vessels as had been for years

passing into a state of complete degeneration, but such as had more recently performed their functions.

The superficial palmer arch was still in form, but impervious, save a small part of the *volæ*, by which, as before stated, the two arches had maintained a quasi connection.

By these pathological conditions, we are reminded of the teachings of the renowned Meigs, who ever insisted that "the normal quality of blood depended upon the integrity of the intima of veins and arteries." "The endangium contains the force that makes blood." "Contact with the endangium is essential to the development of blood originally, since it loses its physical character as soon as it ceases from that contact, or the character of the blood-making intima is demoralized."

"The endangium is the blood-membrane. When it is healthy, the blood is so; when it is diseased, the blood becomes something more or less than healthy blood." "The health of the endangium is as essential to a normal hæmatisation as that of the gastro-intestinal mucous membrane is to the health of the digestive force."

Rokitansky, many years ago, gave it as his opinion that in these cases a deposit of blood took place, but, after the observations of Virchow, Traube and others concerning the microscopic changes which were found to be constant in the intima, he renounced his original hypothesis, and concluded the whole affection to be inflammatory.

It seems to us that in this case we have not only a chronic, but acute and progressive, endartaritis, and that a change of the intima of the blood-vessels must in every case result in a change of the blood itself, not only in the affected vessels, but the entire circulation. This is confirmation of the united doctrines taught by Meigs, Rokitansky, Traube, and noticeably Bariè, who has written learnedly of acute arteritis following typhoid or enteric fever, and who pronounces "the two factors in this disease to be local and permanent irritation by parasitic and infectious germs, and profound disturbance of the vaso-motor nerve supply from whatever source." All of these authors have given us light.

This case proves to our mind that, in endarteritis, change takes place primarily in the intima of the vessels; and after the blood-making membrane becomes somewhat generally affected, the blood itself becomes a changed fluid, tending to deposits, clots, thrombi, pigmentary immigrations, and even exudates of adventitious products.

Society Reports.

ROCHESTER PATHOLOGICAL SOCIETY.

(CONTINUED.)

REPORTED BY EDWARD B. ANGELL, M. D.

DR. S. S. LATTIMORE, Professor of Chemistry in the University of Rochester, read a paper on Urea, its physiological chemistry, with a method of quantitative analysis. The following is a very brief synopsis of the paper:

It is a fact equally interesting to the chemist and physiologist, that urea was the first of the so-called organic substances which was produced artificially or outside of the animal organism. It was believed that an impassable line separated organic and inorganic bodies; that while the latter might be produced by artificial synthesis, the former could originate only in the presence—if not by the intervention—of vital forces. This conclusion was reasonable, because in strict accordance with all the facts observed. But in 1828, Wöhler, in Berlin, succeeded in producing, artificially, the first compound, in all its properties, identical with a body previously known only as a product of animal organism. This was urea, a compound of the following composition, expressed centesimally:

	PER CENT.
Carbon, - - - - -	20.00
Hydrogen, - - - - -	6.67
Nitrogen, - - - - -	46.67
Oxygen, - - - - -	26.66
	100.

As is well known, stimulated by the success of Wöhler, other chemists have succeeded in producing a vast number of organic compounds, many of which are of much greater practical value than urea.

It is for the physiologist, rather than the chemist, that urea possesses the highest interest. In his view, the animal organism is an engine which receives various organic compounds, and oxidizes them with oxygen derived from the air. It is in this change, from low to high oxidation, that energy is liberated. While animals seem capable of accepting an almost indefinite variety of compounds in their dietary, the chief forms under which, after serving their purpose, they are eliminated, are but three—water, carbon di-oxide and urea. These are the final products of vital activity. Carbon di-oxide is a gas, completely oxidized, and eliminated chiefly by the lungs. Water, the most highly oxidized body known, is eliminated chiefly in the liquid form by the lungs, the skin, and the kidneys. Urea is an incompletely oxidized body, eliminated, almost exclusively, by the kidneys. Though a solid, crystallizable body, it is exceedingly soluble. In an adult, the ingesta and egesta must constitute an exact equation. The difference in form constitutes an index to the changes through which they have passed in the hidden processes of the organism. The quantity of each, eliminated, becomes significant. Of the three final products just mentioned, the urea is the only one which can be readily collected and determined with accuracy. The value of such determination appears, when we remember that probably the entire nitrogen—that element which so peculiarly belongs to the animal kingdom—which is received in food, is eliminated in the form of urea, which contains nearly half its weight of that important element, and constitutes 80 per cent. of the total solids of the urine. The rate of tissue waste, whether normal or pathological, is registered in the quantity of urea produced. The elimination of this body must keep close step with its generation, since its accumulation in the blood, to an extent only slightly beyond the normal, produces incipient uremia. All pathological conditions involving increase of tissue waste, are indicated by an increase in the quantity of urea produced; hence the diagnostic value afforded by this knowledge. The value of a qualitative determination of albumen or sugar in the renal secretion is obvious—these substances in any quantity indicating disease. It is otherwise with urea. A qualitative analysis is of no significance, as it is always present in both normal and abnormal conditions; hence, we are driven to the difficult task of a quantitative analysis, if we are to make use of the valuable indications of the

incipiency or progress of disease, or of the efficacy of remedies in restoring the equilibrium of opposing forces. The desirability of securing this information has been of late years widely felt, and has led to the invention of a multitude of instruments and methods of greater or less complexity. The best of these methods yet devised depends on the principle, that upon completely oxidizing urea by suitable re-agents, which affect oxidation indirectly, it is wholly converted into water, carbon di-oxide and nitrogen. Fortunately, no other constituents of urine, at least in any considerable quantity, are affected by such re-agents, so that no preliminary separation of the urea is required. The water immediately assumes the liquid form; the carbon di-oxide may be completely absorbed by an alkaline solution, leaving the whole of the nitrogen in the pure state as a gas. It only remains to ascertain the *weight* of nitrogen evolved from a known *weight* of urine, in order to ascertain the quantity of urea which it holds in solution, it being remembered that the nitrogen constitutes 26 per cent. of the weight of urea.

The writer urged that, at least from a theoretical point of view, even slight fluctuations in the quantity of urea should, if possible, be sought for diagnostic purposes, as preceding such signs as increase of temperature or pulse rate, and he condemned such methods as can only claim to be approximately quantitative. An apparatus capable of yielding exact results, is usually complex, and requires both skill and time to use it, and the latter condition generally places it out of the reach of the busy practitioner, who can rarely claim an uninterrupted hour.

DR. LATTIMORE then presented to the society a form of *Ureometer*, which was the result of some years of practical experience on the part of himself, and also of the students in his chemical laboratory. No claim of originality is made for the apparatus, except in the simple combination of well-known devices, by which both rapidity of execution and accuracy of results are secured. The objective point was to produce an apparatus of simple and inexpensive form, which the busiest practitioner could find time to use, so that a complete and exact quantitative analysis can be executed in the space of a very few minutes; and even an assistant, ignorant of the scientific principles involved, could soon be trained to use it successfully. The process is briefly this: A measured quantity of urine is

decomposed by sodium hypobromide, which is formed at the moment of use, the resulting nitrogen gas being collected in a graduated burette. This is connected at the lower end with a sliding glass reservoir filled with water, by which the pressure can be instantly and precisely equalized. The volume of nitrogen is then taken. A glance at a table of figures gives the correction for the existing temperature and barometric pressure. Then a glance at a second table furnishes the percentage *by weight* of the urea contained in the sample of urine analyzed. If the quantity of urine secreted in twenty-four hours is ascertained, the total daily quantity of urea excreted can at once be easily calculated—the whole process occupying but a few minutes of time. We regret that we cannot present a cut of the apparatus, which, we are well aware, is necessary to a clear understanding of the apparatus which we have rather outlined than described. The accuracy of the instrument was shown by performing, in the presence of the society, an analysis on a solution containing a known percentage of artificial urea.

DR. DAMIS, of Rochester, reported a case of progressive muscular atrophy, and subsequently presented the patient, James L. N., aged 48; occupation, contractor, formerly a nurseryman. Family history good. Temperate in all things. Has led an active out-door life until three years ago. Had considered himself an unusually healthy man until ten years ago, with this exception, viz.: About fifteen years ago, he was thrown violently from a carriage to the ground, striking upon the back of his left shoulder, head and neck. Was picked up in an insensible condition, and remained unconscious for a little more than an hour. Both arms were partially paralyzed, though this was only a transient symptom.

He continued well for four years, with the exception of slight pain and stiffness in the neck and shoulders; and now came on an attack of what the physicians, whom he consulted, called, "Dumb ague." He had chills, slight fever, pains in different parts of the body, marked mental and physical depression, but no actual loss of muscular power anywhere. Appetite was indifferent, but the bowels were regular. No vertigo or other head symptoms. Under treatment, these symptoms disappeared, with the exception that he remained mentally depressed without any apparent cause, and had but little appetite. His mental depression was his most annoying

symptom, yet he continued his business until the winter of 1880 and 1881, at which time he was traveling through the West. After a long ride, when the thermometer was 23° below zero, he had a severe chill; several hours elapsed before re-action came on. A day or two after this, he noticed that his right hand was uncomfortably cold, while the rest of his body was usually warm. Another peculiar symptom became at this time manifest: a burning sensation in the right cheek and eye, which, to use his own words, "seemed as if there was inflammation in them." That sensation has continued uninterruptedly from that time till now. About this same time, he noticed also that he could not hold a pen readily in his cold hand. The fingers seemed stiff, so that he would have to warm his hand before he could write. After a few weeks, he saw that he was actually losing the strength and grip of that hand; and this feebleness gradually increased, till in about six months there was complete inability to hold anything in the hand for the purpose; he would drop his knife in eating, etc.

Within the following six months, this progressive muscular wasting invaded the arm, so that he could not raise his hand to his head to take off his hat, or to put his hand in his pocket. In a little more than one year from the time of his exposure to cold, the muscles of the hand, fore-arm, arm and shoulder were wasted to mere strings; the largest muscle mass remaining around the elbow.

The wasting began in the adductors of the thumb, and, almost simultaneously, in the muscles between the metacarpal bone of the thumb and that of the index finger. During all this time, there was absolute freedom from pain, while the tactile sense was perfect. Nor was there absolute paralysis of motion, while, at the present time, the attenuated muscles respond to the will as well as their crippled condition will admit.

During all this time, the left hand and arm were unaffected, *i. e.*, until the muscles of the right shoulder were well wasted. Then the flexors of the left thumb began to waste, as they had done in the right a year before; and this wasting and loss of contractility took the same course identically as did their counterparts of the other member: so that it has now been about eighteen months since the patient has been able to use either hand or arm to any extent. If there is any difference between the two, it is in favor of the last

affected, because with the left hand he can convey food to his mouth. This he does by resting the elbow upon the edge of the table, and using this as a fulcrum, he can bend the elbow a little; and by bending the body forward still more, he can approximate the mouth and fingers. When the elbows are not so rested, his arms fall as dead weights to his sides. The muscles of the upper part of the trunk are quite progressed in atrophy, and I think the muscles of the neck are becoming involved. During the last three months, the patient has experienced more or less cramping and pains in the feet and legs. But about the only difficulty in locomotion, is that of a sense of weakness in the legs, although the muscles here do not show any marked signs of wasting.

At times, he has, as he expresses it, twitching of the muscles of the trunk, especially in the abdominal region. The last is becoming more and more pronounced. His organic functions seem to be going on fairly well. Appetite is poor, but food does not distress him. Bowels regular; power over sphincters unimpaired.

Within the last ten days, the patient has had some new symptoms, viz.: a drumming in the ears, with tenderness behind and around the right ear; also has a twitching of eyelids; eyesight has failed somewhat during past year, and especially so during the last month. I do not know that any ophthalmoscopic examination has been made. Query—Are these prodromes of progressive bulbar paralysis?

So much, then, as to the history proper of this, to me, interesting case. Before I close, however, I desire to call your attention briefly to another morbid phenomenon manifest in the person of this much-afflicted man.

In the course of, and evidently attached to, the right sterno-mastoid muscle, is a growth, irregular in contour, having two sharply-defined prominences, the whole mass being quite movable and yet quite firmly imbedded in a nidus of muscle. This growth is fully equal in area to a fair-sized hen's egg, but is much longer.

He does not know just how long it has been there, but thinks not less than two years. I have examined it carefully, and I am satisfied that it is nothing more or less than bone. It has no connection whatever with any portion of the osseous system.

It is painless, giving no trouble, except as it limits somewhat rotation and flexion of the head.

If it is bone, it is the only case I have seen of a bony formation in muscle, but it may not be new to some of you. Exostoses, of course, are common enough, but independent osseous deposits like this, I think, are extremely uncommon, inasmuch as by a pretty thorough search through some seven standard works on surgery, I was not able, except in one, to find even a mention of anything like it.

As illustrating the extent to which such bony formations may occur, I find a record of a case which was admitted into St. George's Hospital in 1843, in which the patient, a young man of twenty-two, was literally incased in an armor of bone. The record says: "The greater part of the latissimus dorsi on either side was ossified; large masses of bone filled up to the hollows on either side of the vertebral spines from the sacrum to the occiput, soldering all the bones together into an inflexible column.

"The ribs were immovable by ossific deposits in the intercostal muscles, so that respiration was performed entirely by the diaphragm. The trapezins and the deep muscles at the sides of the neck contained large deposits of bone; the scapulas were immovably fixed to the ribs by ossification of the serratus magnus and rhomboid muscles. The pectoral muscles were ossified in their entirety."

This man finally died, because of extensive bony deposits in the muscles of deglutition and respiration. "The causes of osseous growth in muscles," says Mr. Clarke, "are not easily explained." He quotes Aberneth as mentioning the case of "a lad in whom either an exostosis, or bony growth in muscle, invariably followed a blow on the part." You will remember the fall upon the nape of the neck which this man had fifteen years ago. Remember it, please, in connection with his atrophy, and also in connection with this growth, and decide for yourselves how much credit, as an etiological factor, is to be accorded to it in this case.

A careful examination also discloses considerable spinal curvature in the cervical region, which is significant of the probable extent of the injury caused by the fall. Whether or not this was the origin of the difficulty, the peculiar grouping and progress of the symptoms point inevitably to alteration in the anterior-motor cells of the cord.

DR. L. A. WEIGEL, of Rochester, presented a paper on the "Restoration of Crippled Joints," and gave the history of fibrous ankylosis, involving several joints. Complete restoration of their function was effected by *brisement force*.

Medical News.

BUFFALO is the only city in this State whose vital statistics show an excess of births over deaths. Of course, there is an excess of births in all cities, but the vital statistics are so loosely kept that this is not shown. In 1884, there were 5,410 births and 3,906 deaths. The birth-rate was $27\frac{3}{4}$ per 1,000 and the death-rate 20 per 1,000. In 1885, there were 5,731 births and 3,895 deaths reported. The birth-rate was 28 per 1,000 and the death-rate 19 per 1,000. Our vital statistics show a birth-rate of over 8 per 1,000 above the death-rate. As there are some births unreported, it is probable that our birth-rate is about 10 per 1,000 in excess of the death-rate. During the last two years, there were reported 5,736 male births and 5,448 females, showing that there are $105\frac{1}{4}$ males born to every 100 females, about the usual ratio the world over. Of still-births, there are 127 males to every 100 females.

LISTER'S LATEST ANTISEPTIC DRESSING.—Lister's latest antiseptic dressing is known as salalembroth. He uses it exclusively in his wards with fine results. It is a double mercurial salt, made by the sublimation of a mixture of perchloride of mercury and chloride of ammonium. It is very soluble, and has not been used in medicine since the time of the alchemists. All dressings—gauze, cotton-wool, bandages, lint, bedding, patients' underclothing, etc.,—are soaked in a 1 to 100 solution and dried. He colors these dressings with aniline blue, 1 to 10,000, so that when an alkaline discharge comes in contact with the dressings, the blue is removed and turns reddish, enabling him to see where the discharge has been and its quantity, however small or large, moist or dried.

IODIDE OF POTASSIUM IN THE TREATMENT OF INFANTILE BRONCHOPNEUMONIA.—Dr. Zinnis, of Athens, Greece, says that potassium iodide in the broncho-pneumonia of children, from one to five years of age, especially in the sub-acute form, as nearly approaches a specific as can be. It is most useful in the early stages. He says it lowers the temperature, reduces the frequency of respirations and improves the local conditions rapidly. It is given in doses of eight to twenty grains, according to age, three times daily.—*N. Y. Medical Journal*.

SHPOLANSKI has recently made a series of experiments on nineteen persons, to ascertain the time required for the digestion of milk and other foods under various conditions. Fresh milk remained in the stomach two hours and thirty minutes. On an average of seventeen observations, boiled milk, however, is digested in two hours and ten minutes. In a case of gastric catarrh, the time required was four hours, and in a case of chronic catarrh, complicated with dilatation, the milk remained in the stomach five hours and forty-five minutes. The author also finds that diaphoresis, excited by bother or massage, improves digestion, but that produced by pilocarpine retards it. He recommends the Russian bath and massage in the treatment of some forms of dyspepsia.

DURING the recent French invasion of Tonquin, the surgeons attempted to employ strict antisepsis in military surgery. The soldiers were furnished with antisepsis tampons for the immediate occlusion of wounds, a procedure which was found to be impracticable in the majority of cases. Carbolyzed sheets were used for covering the patients until they could be brought to the field hospital, where the wounds were washed and dressed antiseptically, and the patient left until operations, if necessary, could be performed. While the antiseptic methods succeeded in reducing the mortality among the wounded, the results obtained did not equal those of Reyher in the Russo-Turkish war.

INTERNAL ADMINISTRATION OF CHRYSAROBIN FOR INFANTILE ECZEMA —Stoegwart reports several cases of infantile eczema treated by small doses of chrysarobin. It is given from a thirtieth to a tenth or even a grain daily. The periods of cure did not exceed ten days. Theoretically, the drug is supposed to exert a constricting action on the capillaries of the skin.—*N. Y. Medical Journal*.

THE mortality thus far among the patients inoculated by Pasteur's method is $\frac{3}{4}$ of 1 per cent. Formerly, the mortality amounted to 16 per cent. The mortality among Pasteur's patients bitten by wolves have been 14 per cent. According to Bronardel, the mortality among wolf-bitten patients, previous to the introduction of Pasteur's methods, was 65 per cent.

DR. HUN SU, of Pekin, China, recommends the following for uncomplicated typhoid fever :

℞ Three inches of dried umbilical cord.

One fried snake skin.

One fresh tom-cat's head.

M. Boil in five pints of water for two hours, and strain.

Sig. Tablespoonful every four hours.

PROF. ANTONIO CECI, of Genoa, has recently extirpated the spleen successfully. The patient was a servant girl, seventeen years of age. The spleen was enlarged to such an extent that it constituted one-fifteenth the entire weight of the body. This is the seventh splenectomy performed in Italy, and is the second successful case.

THE discovery of the alkaloid cocaine was made by Pizzi, in Bolivia, in 1857, and not by the German, Niemann, as is usually supposed. Foreth, the professor of chemistry in the University of La Paz, Bolivia, has the manuscripts left by Pizzi in his possession, in which the method of isolating cocaine is described.

DR. V. MOTT, who introduced the Pasteur system of preventive inoculations for hydrophobia, was obliged to discontinue the treatment in the first case operated on in the new laboratory. The patient, a boy, had attacks of fever and delirium after each inoculation.

DR. W. SLAYTER publishes in the *Lancet* a report of a case of delirium tremens produced by chewing tea. Similar unpleasant symptoms have been observed among Congressmen addicted to the use of the cold infusion of this plant.

THE Cleveland *Medical Gazette* reports a case in which a clergyman fractured his own rib while embracing one of his young female parishioners. This case will serve very well to point out a moral, but sounds a little fishy.

A PARASITIC disease has attacked cinchona trees in India. The growers are cutting them down, and the European market is flooded with lots of inferior bark.

IN New York, there is one physician to every 500 inhabitants; in Philadelphia, one to 440, and in Chicago, one to every 365 inhabitants.

THE vital statistics of Paris show that 28 per cent. of all children born are illegitimate. Of still-born, 35 per cent. are illegitimate.

THE Pasteur Institute, of Paris, has already acquired an endowment amounting to 1,000,000 francs.

CHOLERA is rapidly increasing in Italy, and has invaded some of the cities and villages of Austria.

VIENNA is to have a night medical service, modeled after that of Paris.

DR. AGNEW'S works on Surgery are being translated into Japanese.

SMALL-POX is epidemic in Buenos Ayres.

Selections.

ERYSIPELAS OF THE LARYNX.

M. F. Massie, in *Il Morgagni*, publishes his observations on erysipelas of the larynx, and is continuing his studies of the subject by inoculating the streptococcus of erysipelas. At the conclusion of his paper, he summarizes the following facts:

1. There is such an affection as primary erysipelas of the larynx.
2. A great number of cases described as œdema of the larynx, are really erysipelas.
3. There are two forms of laryngeal erysipelas: One in which the local affection predominates, and the other in which the constitutional symptoms are most marked.
4. The method of treatment consists: (*a*), Abstraction of heat and revulsives; (*b*), scarification, and, if this is not sufficient, (*c*), tracheotomy.

THE CHINAMAN VS. THE SANITARIAN.

The BUFFALO MEDICAL AND SURGICAL JOURNAL says: "We welcome the *Southern California Practitioner* in our list of exchanges. This is a new journal, published in Los Angeles, and devoted to general medicine, special attention being paid to the climatology of Southern California. The journal is neat in appearance, and ably edited. We have but one criticism to offer: the editors seem to have been imbued with an excessive amount of the anti-Chinese spirit."

The New York *Medical Record*, in the course of an editorial on "The Chinaman from a Medical Point of View," in which it quotes from the *Southern California Practitioner*, says: "About the same thing can be said of the lower class of Italians, and of Russian and Polish Jews, which are now being poured upon the Eastern shore." We believe that the editors of the BUFFALO JOURNAL and of the *Medical Record* having doubtless spent their lives on the Atlantic side of the continent, are perfectly capable of judging the immigrants who flock to their great cities, and we ask that we, who have spent our professional lives on the Pacific coast, be adjudged capable of giving an unbiased opinion of the Jew, Gentile and Heathen who locate among us. Still, fearing that our editorial brethren may yet consider us prejudiced, we refer them to the following statement from that very conservative Congressman, Mr. Milliken, of Maine:

"Chinatown," he says, "occupies four blocks in the heart of the city. You break off abruptly from the rest of the city when you go into this quarter. You see none but Chinese. They are as utterly separated from the whites, except for the police and occasional visitors like ourselves, as though they were in the heart of the Celestial empire. The Chinese are inveterate gamblers, and their gaming shops are thick along the streets. You see crowds of men, a very few women, and no children. I don't think I ever saw a dozen of children in Chinatown. There are no family organizations among these people, and the Chinese women, who confine their relations to men of their own race, are not looked upon as prostitutes by the Chinese.

"We went down into the Chinese dens, three stories under the ground. In these dives, which are reached through narrow, dark, filthy passages, we found crowds of Chinamen smoking opium. The stench was almost unbearable to American nostrils. I believe

Chinatown could cause a pestilence in almost any American city except San Francisco, where the winds from the ocean sweep across the city at certain hours, and clear out the poisonous atmosphere. * * * Their filthy habits and their grossly immoral sexual relations make them a blot and scourge to the city of San Francisco. They have no families or homes like other people." * * *

Mr. Milliken then proceeds to advocate the total prohibition of Chinese immigration.

What he says of Chinatown in San Francisco, is true of Los Angeles, and every other Pacific coast city, in proportion to population. While we wish the editors of the *BUFFALO JOURNAL* a far better fortune, yet it might be a good thing if a Chinatown, with its opium joints, its prostitutes, its gambling dens, its joss-houses and its lodging-house, was located for one year in the heart of the prosperous Lakeside metropolis. We trust, then, that the "anti-Chinese spirit" of the Buffalo editor would not be "excessive."—*Southern California Practitioner*.

MR. LAWSON TAIT'S MISTAKE.

It is interesting, as well as a source of consolation, to lesser mortals to sit quietly by and witness the mistakes of those to whom we look for something besides error. In a letter written by Mr. Lawson Tait to Dr. R. P. Harris, of Philadelphia, under date of April 16, 1886, on the subject of treatment of extra-uterine pregnancy by faradization, he says: "I have very strong objections to the proposal to treat extra-uterine pregnancy by faradization." After giving his reasons at some length, he concludes with the following: "In the whole course of my life, I have only known one case where the woman has carried an extra-uterine pregnancy for a number of years after the death of the fetus. We know with perfect certainty all about this case, and for about eighteen years she has carried on the left side a condensed ovum of extra-uterine pregnancy. I doubt very much if there would be found in the whole world three other such cases." * * *

This latter is a surprising statement, to the refutation of which Dr. Harris brings an interesting collection of statistics, prefaced as follows: "Mr. Tait appears not to be aware of the fact that cases of prolonged ectopia gestation have been comparatively numerous, as witness the following partial record—"

He then gives a *partial* list of twenty-one reported cases where from one to two fœtuses had been carried for periods from fourteen to fifty-six years, more than half of them being for periods over thirty years.

It is strange that Mr. Tait should make so erroneous a statement about anything connected with extra-uterine pregnancy, in which he is an acknowledged master.

SÄNGER'S CÆSAREAN OPERATION.

At a meeting of the Philadelphia Obstetrical Society, held May 6, 1886, Dr. Robert P. Harris reported the contents of a letter from Dr. Säger, of Leipzig, relative to the success which has attended the modified Cæsarean operation bearing his name. The Porro operation, as practiced at the Santo Cateima Hospital, of Milan, Italy, has until recently held a position in advance of any Cæsarean operation in the percentage of recoveries; now Säger's stands at the head. Dr. Säger reports that his operation has been done twenty-five times, saving eighteen women, or 72 per cent., and twenty-two children, or 88 per cent. Of these, three were performed in America and were fatal. These American cases were hopeless, because of delay in their performance.

The twenty-two operations done in Europe saved eighteen women, or 81.9-11 per cent. Dr. Säger believes this operation should be preferred to craniotomy, because of its moderate fatality, and its saving the child. Dr. Harris said: "We should be glad if all of the Cæsarean operations of the United States should be performed after Säger's method, as simplified by Garrigues and Leopold; but we must not expect very happy results here until our accoucheurs become alive to the fact that delay in operating will make any method fatal in a large proportion of cases. In no country are the capabilities of the old Cæsarean operation greater than in the United States, and in few has this form of delivery been of late more uniformly fatal. To find eighteen recoveries under it, we must search backward to January, 1863, and through a record of time covering more than twenty-three years, in which period seventy-three operations have been performed proving fatal about 75 per cent. This occurred notwithstanding an established fact that a set of early operations will save 75 per cent. of the women, and still higher of the children, in the United States.

CARNRICK'S SOLUBLE FOOD.

Dr. C. F. Denny, in a communication to the editor of *Northwestern Lancet*, says :

Not long since I had brought to me a child of six months, suffering from the following symptoms :

Constipation at times, irregular action of bowels, regurgitation of food, and an asthmatic cough. Its mouth was full of thrush sores, and its appearance one of poor nourishment.

It had been given a number of infants' foods in vain, one of which I prescribed myself.

By means of mild medication, directed towards the cough and stomach, something was accomplished. Finally I gave "CARNRICK'S SOLUBLE FOOD," and had the satisfaction of having it retained, and, at last accounts, the child was doing nicely.

I am inclined to think this food is worthy of attention on the part of the profession.

It recommends itself in that it contains caseine, rendered soluble by pancreatine, starch converted into dextrine and maltose; hence, it requires but little preparation, and that is so simple, mistakes cannot occur.

It requires no addition of milk.

It has the advantages, and none of the disadvantages, of the many foods now in the market, and forms a nearly physiological substitute for mother's milk.

AN ANODYNE FOR USE IN VESICAL IRRITATION.

Dr. W. P. Copeland, of Eufala, Ala., writes: "In almost every community, there are old men who suffer from enlarged prostates, accompanied with a chronic inflammation of the neck of the bladder, rendering them miserable sufferers and a care and anxiety to their friends and families. Having had the professional care of several of this class of cases, and dreading the tendency they so frequently incur by the administration of opium for the relief of pain, I resorted to various washes for injecting the bladder, resulting in my adopting a solution of benzoate of soda, ten grains to one ounce of water, with twenty to thirty drops of the green tincture of gelsemium; this is warmed and injected by the patient through a soft rubber catheter whenever the pain is severe, and the catheter withdrawn, leaving the

medicine to be voided in twenty or thirty minutes; or, when they are not able to pass anything from the bladder, the catheter is re-introduced and the medicine allowed to escape. My experience with this treatment has been so satisfactory, that I cannot refrain from giving it publicity to the profession.—*N. Y. Medical Record.*

THE NEGRO, FROM A MEDICAL STANDPOINT.

Dr. P. Tipton, of Selma, Ala., in a carefully-written article published in the *Sanitarian*, gives some valuable facts regarding the negro race in the South. He first shows that their death-rate is over thirty per 1,000, more than double that of their white-skinned rivals. The death-rate among the Blacks exceeds the birth-rate. The women usually have some uterine disease, which lessens their productiveness. Among the slaves, phthisis was unknown, but now the disease is four times more frequent among the Blacks than the Whites. Phthisis is now the greatest foe of the negro race. Malarial diseases are rare, and when they do occur, are of a very mild type. One-half the male population is syphilitic, but the disease is mild and usually runs its course without treatment. Cancer of the womb is rare; lacerated cervix common. Deafness, insanity, diphtheria and croup are also rare, while hysteria, rheumatism and alcoholism are common. Unless the sanitary condition of the race is soon improved, it is threatened with extinction.

TREATMENT OF MALIGNANT TUMORS BY THE INJECTION OF OIL OF TURPENTINE.

Turpentine injected into the tissues excites a violent inflammation. Alcohol, under the same circumstances, will produce a contraction of the tissues, thus favoring absorption. With these facts as a basis, Vogt determined to treat malignant tumors which could not be conveniently operated on, by injecting into them a mixture, composed of two parts of alcohol to one of turpentine. In this manner, he has treated two cases of cancer of the breast, one case of lymphosarcoma of the axilla and one of multiple sarcoma. One-half to one-third of a Pravaz syringe-ful is injected. This produces inflammation with fever and other constitutional symptoms. In from six to eight days, the tumor either becomes harder and is reduced in size, or is softened and eliminated.—*Il Raccoglitore Med.*

THE PHYSIOLOGICAL EFFECTS OF MASSAGE.

Since in massage the physicians of to-day are placing some reliance in the treatment of various faults of nutrition, it is well to ascertain, so far as is possible, exactly its physiological effects. In the *Lancet* of May 22, 1886, appears an article, setting forth the results of massage on four medical students, who for three weeks were placed by Dr. F. Gopadze in Prof. Manassein's clinic, and lived only on bread, milk, veal, soup and roast beef: the quantities taken daily being accurately recorded. The nitrogen in the foods taken and in the excretions was determined by the Kjeldahl-Borodin process. Each was given massage from twenty to twenty-five minutes, once each day, two or three hours after eating. The appetites were increased and continued large after stopping the massage.

The nitrogenized transformations were increased in all the cases. Two gained in weight, while two lost, but the next week after massage ceased, they all gained flesh. After the massage, for about half an hour, the axillary temperature dropped from 0.10 to 0.5 C., after which it began to rise, and in an hour had nearly reached the normal. Respiration was increased in frequency, and deeper. The pulse varied with the character of the massage—slight massage made a more rapid pulse; more forcible manipulations produced a slower pulse.

TREATMENT OF CHRONIC URETHRITIS.

Dr. O. D. Ball gives, in the *Albany Medical Annals*, a new method of treating chronic urethral discharges. His plan consists in the local application of zinc ointment to the urethral mucous membrane. The following is his formula:

R	Zinci Oxidi,	3 iii.
	Adipis, -	3 iii.
	Cerati Simp,	3 ii.
M.	Sig. Ointment.	

This is applied by means of an olive-headed bougie. The constriction of the bougie is filled with the ointment and rapidly carried down to prostatic urethra, where it is rotated and slowly withdrawn. Dr. Ball has treated fifteen cases with this remedy all successfully. The average time of treatment was a little over four weeks.

Editorial.

THE JOURNAL—VOL. XXVII.

With this number, the JOURNAL enters on the twenty-seventh year of its existence, and the eighth under the control of its present editors. As we look back upon these last seven years, we realize that though our labor has been arduous, there has been much to make that labor a pleasure, and that our efforts to do our duty as medical journalists, have met with a most gratifying recognition from our readers, and, consequently, have not been barren of results. The standard of medical education has, in Western New York, been advanced to a degree which, without legislation, few supposed possible. The attendance upon the meetings of the medical societies, and the quality as well as the number of papers presented, have shown a steady growth in medical culture.

The quackish custom, too common in some other cities, of physicians seeking notoriety by allowing highly colored reports of cases to appear in the daily papers, has not taken root here.

There has, alas, been too much of strife and discord in the profession, but for that we are not responsible, except in so far as the upholding of principle against strong opposition may have led to it; but the profession will, in the end, be the purer and stronger for such conflicts as these!

We would be ungrateful to our kind friends, did we not express our sincere appreciation of their cordial support, especially during the year past. The result has been a year of unparalleled prosperity in the history of the JOURNAL. The number of our subscribers, both in the city and country, has materially increased. Subscriptions have been more promptly paid, and we have thus been enabled to increase the number of our pages, to illustrate freely, and to give our readers, as many of them have been kind enough to say, a better journal than ever before.

For the ensuing year, we have no promises to make; indeed, prospective pledges have of late been monopolized by the

new journals which are launched with mighty promises. The ridicule which commonly follows upon the performance, tends always to the better appreciation of old and tried journals. Our readers—judging our future by our past—know that we will not go backwards.

As an indication of this, we call attention to this first number of the volume. It will be noticed that selections, society proceedings, etc., are printed in smaller type, thus, practically, adding about six pages to the JOURNAL. Several other minor changes have been made, which, we hope, will be acceptable to our readers.

The editors take this opportunity to give a due meed of praise to the energetic and accomplished physicians whose labors, as associate editors, during the year past, has added so much of interest to our pages, and it is but just, too, to give our especial thanks to Dr. Crego, who has contributed largely to the editorial work, and to Dr. Campbell, whose admirable translations from foreign journals have proved both valuable and interesting.

We are glad to announce that the editorial staff will remain the same during the ensuing year.

PRESCRIBING DRUGGISTS.

All physicians practicing in cities are painfully aware of the great number of patients who come under their care after being treated by druggists. The great majority of patients with venereal diseases are treated, at least in the early stages of their trouble, by the drug clerk, and only call on the physician when obliged to take to their beds, or when their malady has reached a chronic stage, with various complications. The druggist prescribes for many other acute diseases in their early stages. We have been called to write death certificates for infants with diarrhœal disease, who have been dosed by the druggist for a week. Many druggists prepare and advertise a number of remedies (?) for numerous ills of suffering humanity. There are Blank's mixtures, Nos. 1, 2 and 3, for gonorrhœa; Blank's cough cure, for all respiratory affections; Blank's rheumatic

remedy, for all aches and pains of muscle and joint; Blank's cholera cure, for all intestinal diseases, etc. These are openly advertised and prescribed, in addition to an occasional prescription stolen from some of their medical patrons. Many druggists, moreover, sell morphine and other poisons with the greatest impunity—although they utterly disregard the law regulating the sale of poisons. Within the past month, we have stood by the death-bed of a patient to whom a druggist had sold a dozen half grain morphine pills. They looked small. Patient swallowed six at one dose. He now rests with his fathers, and his widow takes in plain sewing. We have given a few doses of morphine hypodermically to a man affected with neuralgia. A druggist tells him to buy a hypodermic syringe, and makes him up a solution of morphine, and now he is about ready for the insane asylum.

These are a few illustrations of the harm done to patients by the prescribing druggists. Physicians can easily give examples ad infinitum. The physician is often injured by receiving those cases which have been treated by the druggist. Second-hand patients are seldom desirable, especially when, as is often the case, they have been ruined by the drug-store treatment. Moreover, the druggist himself is eventually harmed by such a course. Physicians are forced to dispense their own medicines, or, at least, to warn them against patronizing the prescribing druggist.

Various causes have led to this evil; as the *Southern California Practitioner* puts it, "the fact that the physician does not dispense his own medicines, and the excessive cost of the drugs as furnished by the druggist to fill the prescription which the physician has written. Many a person, in limited circumstances, says, I cannot afford to pay the physician for his advice and then pay the druggist for his medicines. Which shall I choose? The advice without the medicine will be of no avail, while some medicine without the advice might help me, and, as the druggist must know what physicians are in the habit of prescribing for similar complaints, I will try him first, and if I receive no benefit, will then seek medical advice. And so the

sick man seeks the nearest drug store, and the druggist *prescribes over the counter*. But an important fact is overlooked by the sick man, and ignored by the druggist, viz.: that to treat disease, something more is needed than a knowledge of drugs and a haphazard guess at the name of the disease. Back of it all lie the knowledge of anatomy, of physiology, of the pathology of diseased action, the clinical training, the sharpened powers of observation; in other words, the special training of the physician."

To correct this practice, we would recommend, first, the enforcing of the law relative to the sale of poisons, and this should be attended to by the sanitary police, the board of health. Secondly, the censors of the medical societies should enforce the laws regulating the practice of medicine, thus preventing "*counter prescribing*," as it has been termed; for the prescribing druggist is nothing more nor less than an illegal practitioner, a quack. Lastly, the medical profession itself can do much to counteract this growing evil. The physician should give his patronage to those apothecaries who do a strictly legitimate business, and if such cannot be found, dispense his own medicines, thus severing all connection with the quack druggists. According to an Italian proverb, "Those who sleep with dogs, will catch fleas," so the physician who patronizes a quack druggist will come to harm, and the honor and dignity of his calling will suffer.

THE LIBRARY OF PROF. C. C. F. GAY.

The widow of the late Prof. C. C. F. Gay has presented to the Niagara Medical College, of this city, the doctor's complete and valuable library, as well as his surgical instruments and a very choice botanical collection.

This is a fitting tribute to the memory of the deceased professor; a reflex of the generosity so characteristic of the doctor himself. It was in this college that he performed his last labor for the advancement of the medical profession, and on this account, no doubt, Mrs. Gay was prompted to make this valuable

donation to this school. The library contains most of the standard authors; a complete set of the transactions of the American Medical Association; a complete set of the Buffalo Medical and Surgical Journal; the Medical Record for several years; the American Journal of the Medical Sciences for many years; the American reprint of the London Lancet for a number of years. In addition to this, there are many files of journals, more or less complete, and many monographs; making in all several hundred volumes, and valued at several hundred dollars. The surgical instruments are quite valuable, and the botanical collection is rare. It will, doubtless, be of great value in teaching this branch. The example of Mrs. Gay, in making such a generous presentation, should be followed by the physicians of this city and vicinity. If we are not able to contribute a large library, we can add a volume from time to time. Both of the colleges of this city have now a fine nucleus for a medical library, and the profession can donate to either, as their inclination directs, thereby assisting greatly the students in our colleges. The library of Dr. Gay is now at the college, and will be ready for the use of the students during the next term. We hope, too, the faculty of the college will open it to the profession as a consulting library.

THE NEW YORK PHYSICIANS' MUTUAL AID ASSOCIATION.

This association, whose work has heretofore been limited to the profession of New York and Brooklyn, has decided to extend its privileges and benefits to the profession of the entire State. We desire to call attention to it, as we believe the association merits the support of every physician. Any member of the regular profession, under fifty years of age, in good health and in actual practice, or a teacher or professor in a medical school, is eligible to membership. The cost of becoming a member is three dollars—two dollars for the initiation fee and one dollar for the first assessment. Assessments, one dollar each, are made upon the death of a member; if a member has

been admitted when over fifty years of age, his assessment is two dollars.

Equally important with its life-insurance feature, is the benevolent part of its work. The interest of a permanent fund is used for the relief of cases of sickness or destitution occurring among its members or their heirs. This permanent fund has now reached nearly \$14,000, the latest contribution to it being that of Mrs. Austin Flint, of \$450.

The seventeenth annual report of the association has just been published, which can be obtained from the secretary, Dr. W. Y. Alexander, Station M, New York City, or of any of the following gentlemen, who have been appointed examiners for the State-at-large: Dr. H. Flood, Elmira; Dr. S. Ely, Newburg; Dr. W. W. Hewlett, Babylon; Dr. C. M. Wilson, Gouverneur; Dr. W. E. Ford, Utica; Dr. W. S. Ely, Rochester; Dr. F. H. Potter, Buffalo.

To the Editor of the Buffalo Medical and Surgical Journal:

DEAR SIR—In the last issue of your JOURNAL, in which appears a report of the proceedings of the last meeting of the Central New York Medical Association, you have given a brief abstract of my address (as retiring president,) on "Differentiation in Medicine, the Necessary Results of the Law of Evolution."

In this abstract, on page 569, you have made me quote Dr. George Johnson, of London, as follows: "Of the specialist, it should be said with truth that he is not one who knows more of the particular class of diseases to which he devotes most time and especial attention and study."

The omission from the above of a portion of the quotation has quite altered the sense of what Dr. Johnson says. The correct quotation is as follows: "Of the specialist, it should be said with truth that he is one, not who knows less of the disease in general, but who knows more of the particular class of disease to which he has devoted most time and special attention

and study." (*Vide* transactions of the International Medical Congress, London, 1881, vol. iii, p. 196. Inaugural address, by the chairman, before the section of the diseases of the throat.)

I am, sir,

Yours faithfully,

JOHN O. ROE, M. D.

Rochester, July 15, 1886.

ARSENIC IN SKIN DISEASES.

The editor of the *Journal of Cutaneous and Venereal Diseases* is desirous of ascertaining to what extent arsenic is used by American physicians in the treatment of skin diseases, and also the result of their experience as to its therapeutical value.

Information upon the following points is requested of every physician who reads this :

Are you in the habit of employing arsenic, *generally*, in the treatment of skin diseases ?

In what diseases of the skin have you found arsenic of superior value to other remedies ?

What ill effects, if any, have you observed from its use ?

What preparation of the drug do you prefer, and in what doses do you employ it ?

Address, Editor of *Journal of Cutaneous and Venereal Diseases*, 66 West 40th Street, New York.

MAURICE HACHE, M. D., 8 Rue de Tournon, Paris, May 18, 1886, says: I have tried Bromidia in two cases, one patient suffering from a slight febrile affection, the other a victim of acute insomnia; in the latter case, various preparations of opium had proved useless, and the administration of chloral was followed by lassitude and congestion in the head. Bromidia produced sound sleep in both of these cases, unaccompanied by any unpleasantness on awaking. In my opinion, this preparation is destined to render good service, and I intend prescribing it whenever the opportunity presents itself.

Reviews.

Medical and Surgical Directory of the United States. Complete in one volume. Price \$7.00. R. L. Polk & Co., Publishers, Detroit, Mich. 1886.

There are very few of our readers who have not, during the past year, been made aware that the celebrated publishing house of Polk & Co. were engaged in getting out a work which, they promised, should contain the names of all the doctors in the United States. With some knowledge of the labor and expense which such an undertaking would involve, we had little expectation that the result would be satisfactory to the profession. We must confess, however, that we are most happily disappointed. The book, now before us, contains not only the names of 80,000 persons, arranged alphabetically, but also gives the list of practitioners arranged by States, with post-office address; date of graduation; together with name of college, or other licensing body; and also a list of all the medical colleges in the United States and Canada; the medical journals; medical societies; a synopsis of the laws relating to the profession in each State; an official list of the officers of the medical departments of the United States Army, Navy and Marine Service, etc.

We have taken some pains to test the correctness of the directory by comparing it with our address list, and we are surprised at the few errors and omissions we have been able to find. That such a volume can be sold at the low price of seven dollars, is astonishing. Through this directory, any one will be able to find the present location and address of any physician whose name he knows.

The Genuine Works of Hippocrates, translated from the Greek, with a preliminary and annotation, by FRANCIS ADAMS, L. L. D., Surgeon. In two volumes. Vol. I. New York: Wm. Wood & Co.

Hand-book of Practical Medicine. By DR. HERMANN EICHHORST, Professor of Special Pathology and Therapeutics, University Medical Clinic, in Zurich; 103 wood engravings. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1886.

The above belong to "Wood's Library," and they are valuable additions to the admirable volumes which have appeared

in the series of this year. The works of the great Hippocrates have been unobtainable by the majority of the profession, and this excellent translation will be read with no little interest. Those who care only for the practical side of medicine, will be well satisfied with Prof. Eichhorst's hand-book. This first volume is devoted to diseases of the circulatory and respiratory apparatus. The plan of the work is an admirable one, well calculated to meet the wants of the busy practitioner. We look forward to the appearance of the second volume with much interest.

A Treatise on the Diseases of the Nervous System. By WILLIAM A. HAMMOND, M. D., Surgeon-General United States Army, (retired list,) Professor of the Diseases of the Mind and Nervous System, in the New York Post-Graduate School and Hospital, etc. Eighth edition, with corrections and additions. New York: D. Appleton & Co. 1886.

This volume has been received by the profession "to an extent beyond that ever given to any other work of like scope and objects published in any part of the world." The present edition contains a section on "Certain Obscure Diseases of the Nervous System," is thoroughly revised throughout, and several changes made, thereby increasing greatly its usefulness. We can add, it is one of the most complete works on this subject; it throws light on many points made more obscure by many writers on this subject.

Medicine of the Future. An address prepared for the Annual Meeting of the British Medical Association in 1886, by AUSTIN FLINT, Sr., M. D., L. L. D. New York: D. Appleton & Co., 1, 3 and 5 Bond street. 1886.

"The late Dr. Austin Flint was appointed to read the address on Medicine, before the British Medical Association at its meeting in 1886. The manuscript was found among his papers, and the address is printed precisely as it was written. The proof was reverently read by his son, who dedicates this, his father's last literary work, to the profession he so loved and admired." The book contains an excellent portrait of the late Dr. Flint. It is a most fitting memorial volume. The address itself is a most scholarly work, and should be added to the library of every practitioner.



VOL. XXVI.

SEPTEMBER, 1886.

No. 2.

Original Communications.

MYELITIS OF THE DORSAL REGION, ACCOMPANYING PREGNANCY.

By EDWARD B. ANGELL, M. D.

(Read before the recent meeting of the Central New York Medical Association, at Rochester, May 1886.)

On the 4th of March last, I was called, in consultation, to see Mrs. H., of this city. Inasmuch as the disease, doubtless myelitis of the dorsal region, presented many anomalous features, which, with marked hysterical symptoms, masked the organic malady, while a pre-existing pregnancy developed, unretarded, till death, the case has been deemed of sufficient interest to be presented to the Association. The previous history of the case, gathered from various sources, was as follows:

The patient, thirty years of age, of a marked neurotic temperament, was a French Canadian by birth. She had married ten years ago, and gave birth to a healthy child one year later. Since then she has had two miscarriages, at three months. Her menstrual history was in no way significant. Her family history was good, and her own health always satisfactory, though her temper was strong and obsti-

nate. Previous to the paralytic trouble her health had been very good. Her last menstruation occurred October 18th, and five weeks later, while daily expecting the usual recurrence of the menstrual flow, the paralytic symptoms appeared, and developed with considerable rapidity. Regarding any immediate cause for the trouble, the history is not so clear. So far as could be ascertained, the history, on either side, with reference to syphilitic trouble, was perfectly clear. The patient herself asserted that she had taken a hard cold, and shortly afterward, was affected with a peculiar numbness in the right leg. For one week preceding the onset of the paralytic symptoms she had experienced dull, aching pain in the legs, more especially marked in the feet. During this period the legs were weak and heavy, rendering locomotion difficult and slow. The dull ache, beginning in the legs, gradually extended during the week and involved the trunk as high up as the umbilicus. Notwithstanding this growing weariness she continued her house-work, till one evening, after an unusually hard day's work, a nervous shock seemed to precipitate matters. It may be well to add, just here, that I learned, through a very reliable source, the patient had had a severe tussel with an intoxicated father-in-law, and received several hard blows upon the back, in the neighborhood of the sacrum. But, at the time of my examination, no trace of such injury was evident, nor could I learn through the other attending physicians that these blows had left any external signs. During the night succeeding the hard day's work she awoke to find she had lost sensation in the right leg, though suffering severe neuralgic pain along the course of the siatic nerve. During the following week motor power remained, though greatly restricted. Then motor paralysis invaded the right foot, and, gradually extending upward, involved the whole leg in the course of the following two weeks. The left leg was affected in a similar manner, and by the middle of December the motor paralysis had implicated the trunk up to a line on a level with the umbilicus. About the middle of November,

she noticed loss of sensation in the bladder, rectum and vagina, followed, a week or so later, by entire motor palsy of these organs. Her bowels required the aid of powerful laxatives to secure action, and the catheter was used regularly, from this time, until her death. By reason of this loss of sensation she was wholly unconscious of the passage of feces, or of the contact of the catheter with the urethra. But, curiously, up to within a short time of her death, she recognized the need of an evacuation by a sense of abdominal fullness, and the placing her upon a commode was quite sufficient to establish the mechanism of defecation. This partial reflex control over the corresponding function of urination, however, did not exist at any time, retention being only attended with reflex pain in the limbs, while the early and persistent use of the catheter never allowed it to become incontinent.

About the beginning of December she was attacked with extreme nausea and vomiting, with little ability to retain nourishment. So serious did this trouble become, that, for some time, her life was despaired of. But, in the course of a month or six weeks, she recovered from that disturbance and thereafter was able to eat and digest her food satisfactorily. Whether this was an aggravated form of morning sickness, or, in part, dependent upon the spinal malady, one could scarcely venture an opinion.

From the time of the complete establishment of the paralysis, up to the date of my examination, very little change was noted, other than the development of a very ugly, irascible temper, of a marked hysterical type; and the limit of sensation and power was then two inches above the umbilicus.

During the first week of March a careful examination elicited the following features: The patient appeared well nourished, of good color, and, with the exceptions noted above, her vital functions were well performed. The heart, lungs and liver were normal, the pulse rate was 80 and excellent in character, while the respiratory rate was about

20 and regular. There was no fever. The usual signs indicated the existence of pregnancy, and the abdomen was so encroached upon by the gravid uterus that its thorough exploration was impossible. The expression of the countenance was somewhat anxious, and the temper unstable. She evidently suffered great pain, though it seemed uncertain whether it was subjective or real. Certainly the expression of its severity was very greatly influenced by the circumstances of the moment, very much increased, on the one hand, by the presence of the physician or sympathizing friends, and, on the other, greatly modified by diverting the attention. Inasmuch as I cannot overdraw the emotional features in a truthful portrayal of this case, I dwell a moment upon this phase of her character, as it was displayed from time to time. She was most exacting in her demand for sympathy, and very jealous if it was at all denied her. At times she treated her nurse and the family most shamefully, abusing them outrageously, while an occasional attack of hysteria, attended with sobbing and screaming, tearing her hair and clothing, hurling any article at hand about the room, and other displays of the worst features of uncontrollable emotion, gave striking character to the picture. Yet, in the very worst attack, a small hypodermatic injection of morphia, or the first whiff of ether, would quiet her excitement so easily as, apparently, to determine, beyond doubt, the nature of her malady. So completely did this aggravated hysterical condition mask the deeper symptoms, that every physician—and several were consulted during the progress of the disease—was misled to the conclusion that it must be hysterical paraplegia. Toward forming this conclusion the peculiar correlation of the objective symptoms assisted materially. Let us now examine them.

Voluntary control of the body, below a well defined line about the trunk, was absolutely cut off, there being complete motor palsy of the legs and feet. The rectum and bladder were implicated in the paralysis, as has been noted above, requiring the use of cathartics and the catheter. This line of

demarkation was very definite in front, about an inch below the ensiform cartilage, and somewhat lower—perhaps by an inch and a half—behind, though the left half of this girdle was rather lower than the right. Anaesthesia over the same area was also complete, every inch of the skin, as well as the mucous surfaces of the rectum and vagina, being devoid of sensation of any sort, there being no reaction to touch, to heat, to cold, or to pain, however severe. In testing analgesia the wire brush was used, with both galvanic and faradic currents. Up to the line, above described the strongest currents caused no pain, while half an inch higher, mild currents were most severe. I said loss of sensation over the same area was complete; I should except the dorso-lumbar region of the spine, where there was considerable hyperaesthesia, together with marked muscle rigidity. The electrical tests indicated the absence also of the muscle sense. But concussion of the surfaces of the joints of the legs did produce some trace of sensation, though the statements of the patient on this point cannot be considered reliable. Furthermore there was no bleeding from pin pricks in the affected region. The reflexes were exaggerated, the skin reflexes being very marked up to the epigastric, which was somewhat deficient. Application of the electric brush caused curling of the toes, when applied to the feet, and muscle spasm when used elsewhere. The knee-jerk was excessive, more so on the right side; the right leg also afforded a good ankle clonus, thus indicating the integrity, with overaction, of the lumbar reflex loop. The electrical examination of the leg-muscles showed no reaction of degeneration, the only change being that the reaction to the faradic current was rather retarded, though not deficient in force. The galvanic reaction was slight. There was no wasting of the muscles involved, neither was there any spasmodic rigidity of the limbs, other than a slight stiffness under passive motion. At times there was some spasmodic twitching of the legs, more evident during the application of electricity. There were no bed sores at the time,

and no apparent alteration in the nutrition of the skin or nails. There was, however, considerable anasarca of the fore legs and feet, the ankles showing marked pitting on pressure. Examination of urine, at various times, gave these results invariably: There action was acid; the sp. gr. high, from 1025 to 1030 or 1035; the color, brownish red; considerable deposit on standing; no albumen; no sugar; no casts; strong odor; considerable pus; some mucous cells and numerous crystals of lime oxalate. At no time did it seem to be alkaline, when freshly drawn. At the time of examination, the past history of the case could not be well made out, and the singular combination of symptoms, the absence of tropic changes, usually so marked in myelitis, the preservation of the lumbar reflex loop, the presence of the normal electrical reactions, the nearly normal character of the urine, and the supposed sudden onset of the disease in all its gravity, after a nervous shock, emphasized by the very remarkable play of hysterical phenomena, almost forced the erroneous diagnosis of hysterical paraplegia. This conclusion, however, was shaken by the progress of the case; and its fatal termination, together with points in the history, previously undeveloped, established, as well as could be established without an examination of the cord, the nature of the malady. The treatment offers nothing of interest, unless a confession of failure and disappointment is worthy of note. Under the use of the faradic wire brush and large doses of ergot, however, there was some lessening of the area of anaesthesia at first, the limit of sensation being lowered some two inches.

Nearly two weeks later, or on the 17th of March, there was noticed some abrasions of the skin, on the inner side of the buttocks, though trivial and yielding to appropriate treatment; there was also noticed, at the same time a forming bed-sore, on the right heel. The most puzzling alteration, however, at this time, was a total loss of the skin and knee reflexes, so marked at the earlier examination, together with entire absence of the muscle twitching. There was also some bleeding in the feet from pin points. There was increased pain,

requiring the use of heavy doses of morphia for relief. On the 20th the back was easier, but a burning sensation had developed in the legs and feet, with increasing local pain. On the afternoon of the 21st the respiration seemed affected, more shallow, and somewhat more frequent than normal, the thoracic muscles acting with difficulty. There was some fever, 103° , and the usual symptoms of static congestion of the lungs. But this condition was considerably relieved during the next few days, only to be followed by a much graver attack of respiratory paralysis on the 28th, an attack which baffled all remedial measures, and which resulted in death from respiratory failure late on the following day. A thorough post-mortem examination was much desired, but permission only to open the abdomen and remove the fetus was secured. This partial examination showed the abdominal organs in normal condition, a large amount of fat on the abdomen, the muscular tissues thinned, and a gravid uterus containing a well-developed fetus, at about the sixth month of gestation, and, apparently, only very recently dead. Lacking the confirmation of a post-mortem examination of the cord, the writer can only suggest that the disease probably was a cortical myelitis, located at about the middle of the dorsal region, affecting mainly the post sensory nerve roots and the lateral conducting tracts of white matter, and invading the gray, motor region of the cord only at a very late period in its course, when rapid extension downward implicated the anterior motor cells of the lumbar region, with consequent loss of the lumbar reflexes, while rapid extension upward involved the respiratory muscles, causing the fatal termination.

THE PROPER USE OF ERGOT IN OBSTETRICAL PRACTICE.*

By FRANK HAMILTON POTTER, M. D.,

Assistant to the Chair of Therapeutics and Materia Medica, Niagara University.

If the diversity of opinion, regarding the action of a medicine, may be taken as the measure of our ignorance concerning it, we

* Read before the Buffalo Obstetrical Society, April 27, 1889.

can safely say that the virtues of ergot are yet to be discovered. It has been advised for the most various and opposite conditions and the literature of the subject has grown to such an enormous extent that it would take an entire evening to simply mention what has been written upon it. If, however, we examine this mass of conflicting statements carefully, we will readily discover that most authorities are agreed upon certain of its physiological properties, and so it would not be very rash to advance the opinion that it should only be used along the lines thus indicated. Therefore, before considering whether it has, or not, a place in the armamentarium of the obstetrician, it may be well to state briefly its physiological actions. It is an adventitious product belonging to the vegetable kingdom, but wanting in one of the marked characteristics of the latter, in that it contains no chlorophyl. It is a fungus and lives by feeding upon a higher form of life. It is, therefore, a parasite. It is gathered in that state of suspended animation which some fungi exhibit between the mycelial stage and the development of the thallus. It is a very complex substance containing many bodies peculiar to itself, besides a certain per centage of a fixed oil. It may be used in the form of powder, a fluid extract or an aqueous extract, but as preparations are prone to a more or less rapid deterioration they must be carefully selected and used fresh. Many conflicting statements concerning the action of ergot can be explained by the changes it has undergone between the times of its manufacture and employment. This is an important subject and bears directly upon the use of many drugs besides the one under consideration. As far as ergot is concerned it is only necessary to state Dr. Squibb's conclusions in regard to it, to indicate the great importance of using a pure and fresh sample of the drug. He says: "The requisite of any trustworthy preparation of ergot is, of course, a uniform good quality in the drug, and this is, by no means, easy to obtain. The market is overstocked with ergot, at extremely low prices. Tons of it might be had at sixteen to eighteen cents per pound, but it is all so small that it is almost certain that it is from oats, barley, or

wheat, rather than from rye; while its deficiency in odor and taste, and its uncleanness forbid the idea of its being trustworthy. Most of it is imported in bags, and thus only by chance can arrive in proper conditions. Much of it is contaminated with seeds of various weeds, and requires much labor in cleaning, as the weed seeds are often bitter, and sometimes poisonous. It is not unfrequently wormy, or bears the marks of having been cleaned from worms and worm-dust, to improve the chances of sales and profits. Occasionally lots, and these often large lots, look as if they had been washed, and suggest the idea of having been partially exhausted for the making of the so-called ergotins. Hence, it may be easily understood that to obtain a uniform supply of good ergot is very difficult, even with the screw of prices entirely taken off." In another place, he says: "The molecular constitution of the active portion of the drug seems, however, in its natural condition, to be loose, and, like a slow fermentation, to be undergoing slow molecular changes, so that, by age, its peculiar activity is slowly diminished, until finally lost." The ergot in the grain, however well kept, is known to become inactive, without any known change in appearance, though the sensible properties, such as odor and taste, may be, and probably do change.

Ergot in powder is known to diminish in activity much more rapidly than in grain, and probably soon become inert. The tincture and wine of ergot are believed to change, though more slowly than the ergot in substance, whilst the extracts and so-called ergotins are all supposed to change more rapidly.

From this it can be seen that there must be many useless preparations on the market, and that great care is necessary in order to obtain a good specimen. Having then obtained a pure sample, what actions are you to expect from it? I refer, of course, to its action from medicinal doses, its toxic effects being left out of consideration. It is a heart depressant, slowing its action and rendering the contractions less vigorous. The blood pressure, therefore, at first, falls. This, however, is soon overcome by its action on the nervous system, and then the blood pressure

rises. It is a stimulant to the centric nervous system, causing a marked contraction of the blood vessels, which, as has just been said, more than counterbalances the depressant effect upon the heart. Boldt also declares that through the contracted capillaries can be observed to run wave-like peristaltic spasms. I have seen no confirmation of Boldt's statements, though it can readily be seen that, if true, they would have an important bearing on our conclusions. It acts also upon the involuntary non-striated muscular fibre wherever found, causing it to contract. These contractions are tonic and not intermittent. It causes tonic contractions of the enlarged uterus—I say enlarged uterus, for it makes no difference whether the enlargement takes place through the growth of an ovum, or the growth of a tumor. After the muscular fibre has been developed to a certain point, it becomes susceptible to the action of ergot. Before this no effect is observed, and this explains the influence of the drug over the womb, in the latter months of pregnancy, while in the earlier months no influence at all is observed. It is a true oxytocic; though the effect it produces is very far from being that observed when the uterus contracts naturally; and a study of the differences between the normal action of the uterus and the action produced by the exhibition of ergot, will indicate whether it should be used, or not, during labor, for its peculiar effects.

When the hand is placed upon the abdomen, over the pregnant uterus, and allowed to remain there for a few moments, the tumor beneath will be observed to grow hard and tense, and then again to relax and become soft. How early in pregnancy this condition of affairs exists, I do not know, but probably as soon as the uterus emerges from the pelvic cavity. This rythmical contraction and relaxation is considered by some writers, especially by Lusk and Lawson Tait, as one of the earliest and most reliable signs of pregnancy, no other tumor in the abdomen, or elsewhere, ever exhibiting these phenomena. As the pregnancy draws to a close these contractions grow stronger and stronger and follow each other with ever-increasing rapidity until the womb is emptied of its contents. There is no reason to think

that the "pains" of labor differ, excepting in degree and frequency, from the unconscious contractions discovered only where the hand is pressed closely upon the abdomen of a pregnant woman. These contractions never become tonic but are always alternating, or if, for any reason, the womb does contract tonically, the normal physiological relations no longer exist, and the condition must be considered pathological. This rythmical movement of the uterus is necessary to preserve the life of the foetus. During the contractions the contents of the womb are pressed upon from all sides, and the placental circulation seriously interfered with, if not entirely obliterated. A prolongation of this condition, would of course, cause the death of the foetus through asphyxia. Other interesting phenomena attend a normal labor. The contractile wave begins at the fundus and extends gradually to the cervix, at the same time the circular fibres surrounding the cervix retract, thus causing the os to dilate. If now, for any reason, this process is interfered with, and retraction and dilation prevented, the womb becomes unable to expel its contents, and the destruction of the child results. All this time the glands in the female genitalia, are secreting copiously and rendering the maternal soft parts pliable and dilat-able. Whatever other attendant phenomena there may be, sufficient has been mentioned to show the complicated nature of the process and to indicate what a drug should do in order to be an assistance to delivery. It should not interfere with the regular rythmical contractions of the uterus; it should not interfere with the dilatation of the os; it should not interfere with glandular action, thereby rendering the soft parts dry and unyielding. What now, have we learned concerning the action of ergot? It causes tonic and persistent contractions of the womb; it locks up the secretions; it prevents softening and dilatation of the os uteri, and the surrounding soft parts, it fails not only to render assistance to a single one of the physiological indications of labor, but, on the other hand, puts obstacles in the way, which are often serious, and prevent a successful termination of parturition.

These conclusions, which have been reached from a study of the physiological action of the drug, will be sustained, I think, by a review of its clinical history. Long ago Dr. Emmet warned the profession of the great danger of continued pressure, unrelieved by the recession of the child's head, in lingering or delayed labor. By this delay the soft parts of both mother and child are liable to become necrotic, through the interference with the circulation, and, more or less, complete destruction follow, according to the length of time the pressure is kept up. There may result vaginitis, pelvic cellulitis, or sloughing, of a more or less extensive surface. The destruction may be so slight as not to be readily detected, or so great as to seriously endanger life. On the other hand, cases have been recorded where the stimulation to uterine contraction has been so powerful, probably through a peculiar susceptibility to the action of the drug, that the child has been at once thrust into the world, in spite of the resistance of the undilated soft parts, and all the lacerations occurring singly, or in groups, from rupture of the uterus, to rupture of the perineum, have followed. Again, it may act upon the entire uterus, causing a powerful spasm, as has just been mentioned, or upon a special portion of it, causing irregular contractions. The middle portion may be effected, resulting in hour-glass contraction, or the circular fibres around the cervix, preventing retraction and dilatation, or the fundus alone, or a single cornus, causing irregular and ill-directed efforts at expulsion. This uncertainty in the action of ergot, even where it is pure, should, in the absence of all other considerations, render us very cautious in its use. What should be done in these cases of lingering or delayed labor does not fall within the scope of this paper to discuss. The various methods of treatment are familiar to all. I merely wish to point out that ergot is not the proper means to employ, on account of the dangers attending its use, and the uncertainty of its action. Besides the necroses and lacerations, already referred to, the life of the child may be endangered by the use of ergot. Many years ago Dr. Beatty, of Dublin, and Dr. Eve, of this country, called attention to the

danger resulting from the absorption of the essential oil of ergot, claiming that it acted as a poison upon the fœtus, destroying its life, even when there was no visible effects upon the uterus. Since that time this subject has been thoroughly investigated, and still-birth is now recognized as one of the deplorable results that may follow the use of this drug. This may result from the poisonous action of its essential oil upon the fœtus, or from the compression of the latter, and the interference with the placental circulation, when, after its use, the womb is thrown into a state of tonic spasm, but more likely from a combination of both these causes. Meigs has declared that "multitudes of children were dead-born from this cause, by the exhibition of a medicine, which, as certainly excites spasm of the womb as *nux vomica* does of the other muscles of the body." In 1850 the commission appointed by the Academy of Medicine, of Paris, to investigate the influence of ergot upon the life of a child, reported "its life endangered both by compression and narcotism." And three years afterwards the Academy formally adopted the conclusions of M. Depaul, that "except in miscarriage, in certain labors, attended with hæmorrhage, and, occasionally, at the conclusion of natural labor, parturient women would be gainers by the complete disuse of ergot." I learn, also, from Dr. Johnson, of Washington, who read a paper on this subject before the American Gynæcological Society, in 1882, that Dr. Stearns, who re-introduced this remedy to the profession, and who used it more cautiously than many do at present, "lost his practice from a strange mortality among the children, and from child-bed fever, which followed him like an evil genius from door to door."

Prof. Chapmann, of the Long Island College Hospital, has stated that "there can scarcely be any doubt that one hour's ergot-pain would be fatal to one-half the children born, for they are literally smothered, since they are effectually shut out from the very source whence their blood can be supplied with oxygen." And again, that "we should never use ergot as an expulsive agent, never where the pains have been, and are vigorous, never to overcome impediments, such as narrow pelvis or

rigid perineum, and never in primipara, under any circumstances." This kind of evidence could be multiplied until we would all be wearied with its recital, but sufficient has been said to show the prevailing opinion among the teachers upon this subject. I am inclined to think, however, that these words of warning are not heeded, and ergot is still used too frequently by many physicians.

This drug has been used also in cases of threatened or actual abortion, and retained placenta and membranes. But from its action it will be readily seen that instead of assisting to expel the ovum, or the membranes, it really shuts them up in the uterus, and prevents the employment of far safer means. It may possibly become necessary to remove the ovum, the retained placenta, or membranes, and by the use of ergot you have rendered the os uteri rigid and unyielding, which increases, ten-fold the difficulty of so doing. Besides, by shutting up material which no longer has a physiological relation with the uterus, and is prone to decomposition, you may, through absorption of this material, find yourself confronted by a dangerous and insidious form of puerperal septicæmia. On the whole, then, the dangers of its employment are too great, and it is safe to say that ergot should never be used in this class of cases.

It has been advised also as a means of preventing and curing post partum hæmorrhage, and it would seem a priori to be especially adapted to this class of cases. Its proper use, however, depends largely on the cause of the hæmorrhage and the time when it takes place. If the hæmorrhage occur before the birth of the placenta, it is the best practice to remove the latter at once, and then cause the uterus to contract by the application of astringents to its inner surface, at the same time kneading it externally, ergot should then be administered, hypodermically with the hope of its preventing a relaxation of the womb and a recurrence of the bleeding. The danger of shutting up the placenta in the uterine cavity has already been mentioned, and in order to avoid the unfortunate complications resulting from this accident, the administration of ergot should be deferred until the womb is entirely empty.

There are other cases in which, after the womb has once firmly contracted, secondary relaxation occurs, followed by hemorrhage. Here ergot can be used with a great benefit, as tonic contraction of the uterus is just what is most desired. The literature is full of cases of this description, in which ergot has been of great assistance, and even in some instances has been considered the sole cause of the successful results. This is its proper place as far as obstetrical practice is concerned, and I cannot help thinking that many of the dangers of the lying-in-chamber would be prevented if it were never used, excepting in those cases where, the uterus being empty, secondary relaxation threatened, or had actually occurred. Of course, it takes a few minutes for the drug to produce its effects, even when given hypodermically, and it should be supplemented by the other means usually employed in cases of this character.

In the preparation of this paper I have avoided, entirely, the reports of cases, the object being to present merely a connected outline of the subject, and to draw out from the members of the club their own experiences.

Nothing has been said of the use of ergot in the other departments of medicine, and this interesting subject must be reserved for some future meeting.

In conclusion, allow me to present the following points for consideration :

I. Ergot is a drug which in any of its preparations tends to deteriorate rapidly, and should never be used, excepting when prepared from a pure and fresh specimen.

II. It is a stimulant to the tubular and non-striated muscular structures of the body, causing them to contract.

III. It acts especially upon the muscular structure of the uterus, throwing it into a state of tonic spasm.

IV. Its action on the uterus is, however, uncertain; sometimes it contracts the entire organ, at others only a small part of it.

V. If the entire organ is contracted, labor may be delayed through the rigidity of the os, and the child destroyed by the interference of the placental circulation.

VI. Or the contractions may be so powerful as to force the child at once into the world, causing any or all of the lacerations of the soft parts of the mother.

VII. The life of the child may be endangered, also, through absorption of the essential oil of ergot.

VIII. If given after the birth of the child, and before the expulsion of the placenta and membranes, it may prevent the removal of the latter, and thus be indirectly a cause of puerperal septicæmia.

IX. It may act in a similar manner in cases of abortion, actual or threatened, and cause a similar result.

X. The proper use of ergot in obstetrical practice is limited to those cases in which, after the expulsion of the placenta, the uterus refuses to contract, or having once contracted shows a tendency to secondary relaxation. Even in these cases, however, reliance should not be placed upon it alone, but its action should be supplemented by the other means used to provoke uterine contraction.

284 Franklin Street.

Society Reports.

BUFFALO MEDICAL AND SURGICAL ASSOCIATION.

Meeting of August 3, 1886.

The President, Dr. W. W. Potter in the chair; Dr. F. R. Campbell, Secretary,

Present—Drs. Bartlett, Strong, Coakley, Runner, Howe, Clark, Brecht, Park, Wm. G. Ring, Hartwig, Hawkins, and, by invitation, Drs. Brush, of Philadelphia, and Miller

DR. F. W. BARTLETT read a paper, entitled "*Antiseptic Midwifery*," calling special attention to the use of turpentine as a germicide, to be used in the prophylaxis of puerperal fever.

DISCUSSION.

DR. STRONG had not used turpentine in his obstetric practice. He believed that 99 per cent. of the cases of puerperal fever

occurred in patients where there had been incomplete contraction of the uterus. No physician has a right to leave the lying-in chamber until the uterus is thoroughly contracted. In his early practice he had had a number of fatal cases of puerperal septicæmia, and he believed that, with his present knowledge, all might have been saved.

DR. COAKLEY stated that if, by any chance, he were to be limited in his practice to 15 or 20 remedies, he would retain turpentine in that number, as he considered it the most valuable antiseptic both for surgical and obstetrical purposes. He began the use of turpentine in midwifery upon Dr. Bartlett's suggestion, and had been uniformly successful with it. In order to secure uterine contraction after delivery, he always gave ergot.

DR. CLARK had never used turpentine in midwifery, but considered it a valuable germicide. Used bi-chloride of mercury as an antiseptic, disagreed with Dr. Strong, who believed that septicæmia was usually due to insufficient contraction of uterus. Thought the essayist had been peculiarly fortunate in having but three lacerations of the perineum; in 220 cases of labor.

DR. HOWE spoke of importance of disinfecting the vagina before delivery, as advocated by Crede, in order to prevent ophthalmia neonatorum. Took issue with the essayist's hypothetical explanation of the germicidal properties of turpentine. It is easy to demonstrate the antiseptic properties of any drug. Exhibited a number of tubes containing germ cultivations and showed how to determine experimentally the antiseptic power of a drug. Stated that the bichloride and biniodide of mercury were the most powerful antiseptics.

DR. BRUSH, during the past eight years, had delivered quite a number of insane women. Had always used antiseptics, with the best of results. He generally ordered the patient removed to a clean bed after delivery.

DR. HAWKINS had not used turpentine in obstetrical cases, and did not consider it necessary to use an antiseptic after normal delivery.

DR. HARTWIG thought Dr. Bartlett's use of turpentine was good as far as it went but something must, at times, be used per vaginum. Persulphate of iron he believed to be dangerous, and preferred salicylic acid, because it is not poisonous even in strong solutions. Thought that thorough uterine contraction would reduce the number of cases of puerperal fever.

DR. W. W. POTTER, criticised Dr. Coakley, who considered turpentine the most valuable antiseptic, showing that it ranked much lower than several others. He did not believe that there was such a thing as milk fever, and considered these exacerbations of temperature "mild attempts at puerperal fever." Agreed with Dr. Howe in believing that antiseptics should extend to the child. Believed that a variety of disinfectants were valuable, to be selected according to the character of the cases. Advocated weak solutions of bichloride, 1 to 5,000. The odor of turpentine is offensive to many women.

DR. HARTWIG would not use salicylic acid, if puerperal fever were actually present.

DR. BARTLETT, in conclusion, stated that the relative value of an antiseptic determined experimentally, was a very different thing from the value determined clinically. The mercurial preparations may be the most powerful germicides but they have objections which preclude their use in many cases. Turpentine was most valuable as a prophylactic. It had never produced strangury in his practice.

Voluntary Communications.—Dr. Hartwig reported the case of a woman afflicted with ascites. Paracentesis abdominis had been performed several times. Attempted continuous drainage into the subcutaneous tissues. Great œdema of the thighs and vulva resulted, and continued until the opening in the linea alba closed spontaneously. Abdominal tumors were detected by palpation before death. The autopsy revealed a contracted liver with perihepatic adhesions. There was hydro-nephrosis of both kidneys, the spleen was enlarged, with a few slight elevations externally. In the parenchyma of the spleen were found two tumors which were supposed to be of syphilitic origin.

Prevailing Diseases.—Diarrhœal affections.

Special Meeting, August 14, 1886.

The President, Dr. W. W. Potter in the chair; Dr. F. R. Campbell, Secretary.

Present—Drs. C. L. Dayton, Hauenstein, Ring, Bartlett, Rochester, Park, Folwell and Coakley.

The President, in opening the meeting, called attention to the fact that for the third time within a year the association was called upon to mourn the death of a distinguished member. Dr. Frank H. Hamilton of New York, who was for fifteen years a resident and practitioner

in Buffalo, who was one of the founders of the Buffalo Medical and Surgical Association and of the Medical Department of the University of Buffalo, died on Wednesday, August 11th, thus ending a life which had reflected the greatest honor upon American medicine and upon the profession of this city, which was the field of some of his best labors and experience.

After remarks had been made by Drs. C. L. Dayton, Hauenstein and Bartlett, who had had professional relations with Dr. Hamilton, Dr. Rochester offered the following memorial which it was voted should be spread upon the minutes: "Frank Hastings Hamilton has finished his earthly career full of years and full of honors, and we cannot doubt that he has been called to receive the reward of a life well spent, thoroughly devoted to the comfort, welfare, and amelioration of his fellows. A long retrospect carries the speaker to the days when he was pupil, friend, colleague, and intimate associate of the departed, a period of forty years, and through it all a pleasant memory extends—a memory of assistance and advice—of many professional and social interviews, always enriched and illustrated by reminiscence or anecdote in a voice so eloquent, so persuasive, and so gentle that it was music in its every note. Those who have only heard Dr. Hamilton in recent years, since his vocal affection, can form no idea of the spell by which his utterance held the listener in the lecture-room and in debate. For over twenty years Buffalo was Dr. Hamilton's home, and that it was so in every sense of the word, by his professional success, by his host of warmly-attached friends, by his reputation extending from this, as a center, cannot be doubted, and we felt that indeed he was going "away from home" when he followed, within a year his colleague, the late Dr. Austin Flint, to the great city. He was attracted thither to found a new metropolitan medical college, to find a broader field for his usefulness, and to issue, with increased prestige, his new work on surgery, his "Fractures and Dislocations" having already been published and received in the most flattering manner. There is some question, in fact, whether this is not the most useful of any of his publications. It contains a mine of statistical information, never before made public, gives the very best advice, and has saved many physicians from the persecutions and annoyances of malpractice suits, which it has done more than any other publication to stop. This

work alone has made him an inestimable benefactor to the whole medical profession, and as such he will ever be recognized and remembered.

"In 1871, his voice having failed him, so that it was almost impossible for him to articulate, he was obliged to abandon didactic lecturing, in which he had been so strong and so attractive, but continued, for some years, his clinical illustrations and busied himself with his publications, his surgical history of the War, and general consultations. The most memorable of these was when, with Dr. Agnew, of Philadelphia, he was invited to see the late President Garfield, a call recognizing his eminent ability and skill. As an operator I do not think he had his superior. He was neat, graceful, and precise, and very fortunate. It is not necessary to enumerate the dates of Dr Hamilton's various positions and services; they are already mentioned in the daily journals. It is upon his private life that it is most pleasant to dwell. He was the very soul of chivalry. His reading was varied, and the poetry, of which he was so fond, gave a delicacy and refinement to his thoughts, which was constantly manifesting itself in his conversation. He always, when it was proper, sustained his professional brethren, and to the young he was especially cheering. Many a young practitioner, in the doubt and embarrassment of his early days of practice, has passed from his presence with cleared brow and buoyant hopes. I have said he was chivalrous. He was sometimes irritable, and occasionally, in the moment of excitement, would sometimes say or do something hasty, but he never bore ill-will, and often and often has hastened to take back an expression of annoyance, in the most frank and honorable manner. He has gone to his rest. Long will he be remembered most pleasantly and gratefully. He has not lived in vain."

Translations.

PERLECHE, A NEW PARASITIC DISEASE OF CHILDREN.

By F. R. CAMPBELL, M. D.

Translated from *Le Progrès Médical*.

There exists among the children attending the schools in the provinces, a mild disease, the parasitic nature of which has just been

demonstrated by Dr. Austin Lemaistre, Prof in the Medical School of Limoges. It will not be uninteresting to our readers to publish the facts given by our distinguished confrere concerning this new disease, which is not mentioned in any treatise on medicine. In the Limousin district, where the disease is quite common, the inhabitants designate it by the name of *perleche* (French, *perlecher*, to lick), because of the burning sensation which leads the children to lick their lips. It is also called *Bridou*, because the commissures of the lips are, as it were, fastened together, (*bridées*), the disease first making its appearance at the angles of the mouth, and extending from that locality. The epithelium first assumes a whiteish hue, then becomes soft, and is easily detached; the disease then attacks the cutaneous surface about the mouth, and becomes at once manifest. As a rule only the superficial layers of the epidermis are affected and the true skin is not diseased. Sometimes there are slight fissures in the commissural folds which cause considerable pain and some hemorrhage when the child opens his mouth. The lesions bear a marked resemblance to the mucous patches and fissures of syphilitic children.

The duration of the disease is not ordinarily greater than from fifteen days to a month. Some children are attacked nearly every year, and relapses are not at all rare. Such is the clinical appearance of the disease of which Lemaistre is the god-father. To complete the clinical history we will state that the affection is not of a grave character, and is unattended by constitutional disturbances; but it causes pain on movement of the mouth and is unsightly. As Lemaistre has demonstrated beyond question, the malady is contagious and is propagated by the inconvenient drinking vessels commonly used in provincial schools, all the pupils drinking from the same cup without cleansing either it or their mouths as is customary in polite society.

Having had occasion to make microscopic examinations of the secretions from the lips of a number of children affected with *perleche*, Dr. Lemaistre constantly found micro-organisms and soon came to the conclusion that the disease was of a parasitic nature. In preparations colored with methylene violet, he ascertained the presence of numerous globular bacteria and diplococci. In places the bacteria formed isolated masses and colonies of from 20 to 300 individuals. Their favorite place of growth is the border of epithelial cells; often the cells are invaded and destroyed by the bacteria. Lemaistre con-

cluded from his first studies that perleche is characterized by the presence of a microbe belonging to the class schizomycetes and group sphero-bacteria, micrococci.

Culture experiments were then made. Five Pasteur tubes were filled with sterilized bouillon. These were inoculated by taking platinum wires, after being heated to a white heat, cooled, placed in contact with the perleche of five children, and then dipped into the bouillon of the tubes which was kept at the temperature of the body, ninety-eight degrees. At the end of ten hours numerous whitish flakes were observed in the tubes. Under the microscope there were seen isolated sphero-bacteria and others arranged in the form of a figure eight with movements identical with those found in the morbid secretions. Long chaplets or streptococci were also seen. The flocculi were made up of an interlacement of innumerable chains, whence the name *streptococcus plicatalis* which the author gives to the microbe. The most astonishing phenomenon observed by Lemaistre in his studies was the rapidity with which the micro-organisms developed; within a few hours they would increase to incalculable numbers. In all the tubes the same microbe was always found, without the admixture of any other variety. Pursuing his investigations further, Lemaistre endeavored to find the microbes of perleche in the drinking water of certain schools where the disease was prevalent. A child from L'Ecole des Feuillants, affected with the disease, lived in the suburbs and drank water from a fountain in a neighboring meadow. Perleche is very common in the neighborhood. A woman, whose children had recovered from the disease on leaving this district, states that they were reinfected immediately upon their return. Provided with these facts, Lemaistre collected with a sterilized pipe the last drop of water in a basin of water from the fountain. Microscopic examination failed to reveal the streptococcus. Twenty Pasteur tubes, containing sterilized bouillon were inoculated with the water. After being kept ten hours at a temperature of eighty-six degrees, the bouillon became turbid and in thirty hours flocculi were seen, bacteria and diplococci also appeared, but there was no evidence of mature streptococci. In order to detect among the numerous colonies of bacteria in the tubes, the microbe which he sought, Lemaistre used the jelly of *fucus crispus* prepared according to Miquels method and spread upon Bristol board. Then the boards were plunged into the bouillon inoculated

from the water and placed in sterilized tubes stopped with cotton. After the lapse of some days numerous distinct colonies were developed on the boards. Some of these consisted of diplococci, which, placed in bouillon developed the streptococcus plicatalis. It was then known that the microbe of perleche is identical with that found in certain potable waters and that the disease is produced by the use of such water. The explanation of the origin and propagation of the disease is quite plausible. The micrococci of perleche are found in infected wells, fountains, and in stagnant water. When this water is drawn into pails and pitchers and placed in the warmer air of the house or kitchen, the micrococci develop and assume the form of chains. The wooden pails of schools are always moist and seldom washed, thus becoming a suitable culture ground for the germs; from these other persons, other utensils, and even the well or spring itself may be infected. The microbe is found only at the angles of the mouth because it is anaerobic, and finds here sufficient moisture and shelter for its development. But even this shelter is imperfect and it is for this reason that the microbe is limited in its action and soon dies, thus accounting for the mildness of the disease. The following are some of the statistics of the disease collected by Lemaistre: Of 5,500 children, who attend the primary schools of Limoges, 312, about 1-17, were attacked with the disease. Some schools did not have a single case, in others nearly all were affected. The latter schools were in the suburbs, where the water was supplied from wells and springs. These statistics were collected in the winter, when the disease is at its lowest ebb. In the spring and summer the malady increases to a considerable extent. Although the writer's experience is confined to Limoges, the disease prevails in many other localities. In the village of Perigord, a few months ago, the majority of the children were affected with perleche.

With regard to treatment, we will state that it is exceedingly simple. Touching the affected integument with sulphate of copper or alum is very efficacious. Boric acid is useless and Lemaistre assures us that the streptococcus plicatalis will develop rapidly in borated solutions. Treatment is, however, of no great importance, as the majority of cases will recover without any applications whatever provided ordinary cleanliness is observed. As the microbes develop in the pails and tin cups, it is of the utmost importance to see that these are prop-

erly cleansed and disinfected. Boiling water or dry heat will serve as valuable disinfectants for the vessels, but infected wells and springs must be abandoned.

Finally, the medical inspection of schools should correct the traditionally unclean habits of the school-room, which propagate perleche and a host of other parasitic affections of childhood. There is thus a matter of school hygiene, besides the scientific importance of the discovery of Dr. Lemaistre, which reflects upon him the greatest honor. We have but one criticism to offer to the work of Dr. Lemaistre. After isolating and cultivating the infectious microbe of perleche he should have reproduced the disease by means of inoculation. The disease is benignant and the cure easy, and it is surprising that this experiment has been omitted in M Lemaistre's remarkable work.

Medical News.

AUTOPSY OF KING LOUIS OF BAVARIA.

The results of the autopsy give a key to clinical manifestations, observed in the King during several years past. The lesions of the cranium and brain were especially interesting. The scalp was thick, the cranium small and asymmetrical. The vault was extremely thin, the frontal and sagittal sutures ossified. The frontal suture contained osteophytes on the inner surface. The superior longitudinal sinus was greatly dilated posteriorly, and contracted anteriorly near the ethmoid; Pacchionian bodies prominent; dura mater thickened, especially in its frontal portion, and very hyperæmic. The sphenoid and the pterygoid processes contained exostoses; the sella turcica was asymmetrical, porous and friable. The sinuses of the base were engorged with black blood. The weight of the brain was 1,349 grammes (43½ oz.) The arachnoid was thickened. At the summit of the left ascending frontal convolution, in its anterior portion, the arachnoid and pia mater were adherent; in this same place the cranial vault was as thin as a sheet of paper. Many convolutions were atrophied. The cerebral substance was hyperæmic and somewhat softened. The lesions of other organs were insignificant. The stomach presented evidences of chronic catarrh — *Progrès Medical*.

FERRAN, who, a year ago, attained a world-wide distinction from his so-called preventive inoculations for cholera, has recently published an article on "Gout and its Treatment," which is attracting considerable attention in the Spanish medical journals. The author calls attention to the injurious effect of the salts of soda upon those predisposed to gout. He observes that the disease is most frequent among the inhabitants of maritime cities, and is common among the passengers of vessels carrying salt. Alkaline waters also precipitate the attacks, which are followed by periods of alleviation. Whisky and other alcoholic liquors, excite attacks, which appear to cure the patient, for the time being. For treatment he recommends the acetic extract of colchicum and inhalation of nitrite of amyl, which latter drug diminishes arterial tension and facilitates the elimination of uric acid. Nitrite of amyl is an excellent remedy in those cases which will not bear the nauseating and depressant action of colchicum.—*Revist. de Ciències Mèdicas*.

FOR the treatment of leucorrhœa and fetid vaginal discharges, *La Rev. des Mal. des Femmes* recommends the following :

R	Potassii Chloratis.	-	-	-	3iii.
	Tinct. Opii	-	-	-	3iii
	Aq. Picis Liq.,	-	-	-	3viii.

M. Sig. Two or three teaspoonfuls to a quart of warm water, injected morning and evening. When there is pruritus vulvæ with the leucorrhœa, a solution of equal parts of tincture of iodine and iodide of potassium should be made, and a teaspoonful of this in one or two quarts of hot tar-water injected twice a day.

TEST FOR BILE IN URINE.—A writer in the *National Druggist*, direct attention to chloroform as a test for bile in the urine. It is ready, delicate and certain. All that is necessary is to agitate a few drops of it in a test-tube, along with the suspected urine. If bile be present, the chloroform becomes turbid, and acquires a yellowish hue, the depth of which is in proportion to the amount of bile present, in the urine. If no bile be present, the test-fluid remains limpid.—*American Medical Druggist*.

THE fortieth anniversary of Dubois Reymond's connection with the University of Berlin was celebrated in July. He was a student

of the distinguished Müller, and among his fellow pupils were Reichert, Schwann, Virchow, Helmholtz, Henle, Haeckel and Max Schultze. He is, to-day, the world's greatest physiologist, having done more than any other man to clear up the physiology of muscles and nerves, besides contributing to other branches of this science.

A PATIENT of Pasteur's, bitten in the hand by a dog on the 21st of April, and treated in Paris from the 4th to the 13th of May, died July 21st of rabies. An autopsy was made and the medulla sent to Pasteur. A rabbit and a dog were inoculated from this and both died. Pasteur states that this is the first time that his treatment has been unsuccessful in a patient bitten on the hand.

DR. M. CHARRIN, of Paris, has discovered that cataract may be produced in rabbits by the internal administration of naphthaline. The disease has thus been induced in five rabbits, by the daily administration of from nine to twelve minims of the drug, to each pound of the animal. These doses are fifteen times greater than the ordinary dose for man.

THE Board of Health of Buffalo is about to enforce the law, recently made, requiring the licensing of "baby farms." This industry will in the future be placed under the auspices of the sanitary police, and it is to be hoped infanticide from want of care and starvation, now so common in "baby farms," will be suppressed.

PROF. GUISEPPE SORMANI, after carefully trying Cantani's method of treating phthisis by inhalations of the *bacterium termo*, concludes that it is entirely destitute of curative properties. Equally good results were obtained by using dry sterilized bread powder.

DR. M. SEE employs a 10 per cent. solution of chloral for injection into the tunica vaginalis in the treatment of hydrocele. This solution, he claims, has all the advantages and none of the objections of tincture of iodine.

M. ELISEFF presented to the French Anthropological Society a woman with a caudal appendage covered with hair. This anomaly was present in several of the maternal ancestors of the woman.

DUCLAUX has studied the action of sunlight upon chemical transformations. He finds that the effects of light on nutritive liquids is analogous to that of microbes on the same substances.

THE Brazilian Government has sent a commission to Paris to study the methods of Pasteur for the prevention of rabies.

DR. S. T. HOWELL has been appointed lecturer on pathology, in the medical department of the University of Buffalo.

Selections.

CHOREA.

The discussion of this malady is so frequent in the journals and the treatment and results of treatment are so varied, that one inexperienced in its treatment is liable to ask if there is any one form of treatment more reliable than all others. To show some of these varieties we quote from the *Fort Wayne Medical Journal* the following resumé of forty forms of treatment:

“Spencer M. Free, M. D., Baltimore, (*Maryland Medical Journal*, April 24, 1886): After discussing the causes, Dr. Free says of treatment, that drugs have been employed extensively as to number and dosage. With few exceptions they are valueless.

“The first to be recommended is, as far as possible, fresh air, outdoor exercise, avoidance of excitement, proper bathing, plain and nourishing food. If the case is severe, rest in bed may be of advantage.

“If a cause is discoverable, as worms, decayed teeth, nasal catarrh, etc., remove it. Without a careful search we have come upon thirty-nine forms of treatment.

“*Strychnia* has its warm advocates. Trousseau probably is its best exponent. He uses a solution of the sulphate. He gives it in a dose of $\frac{1}{320}$ of a grain t. i. d., gradually increasing the amount to 1 grain per day. He cautions concerning the great danger, and enjoins care and watchfulness.

“West and Bouchet oppose its use on account of the danger, as a number of deaths have been produced by it.

"In all anæmic cases tonics are called for. Iron, in some form, is preferred by nearly all writers. Radcliff uses the iodide, J. Lewis Smith the ammonio-citrate. The mur. tinct. is generally used. The emulsion of cod-liver oil with the hypophosphites of lime and soda has been used with good effect.

"Dr. Young, of Philadelphia, prefers *cimicifuga*.

"Dr. West, sulphate of zinc.

"Drs. Steiner and Hufland, oxide of zinc.

"Dr. Wier Mitchell, salicylate of soda, especially in cases of rheumatic diathesis.

"Dr. J. H. Carstens, propylamine.

"Dr. Goodheart, rest

"Drs. C. L. Dana, Mills, Webber, Rockwell and Beard, galvanization of brain.

"Drs. Baunis and Burnheim regard hypnotism a specific. Only a few seances are necessary.

"Applications of cold to the spine, by means of the wet pack, a jet of cold water, or the ether spray have been used quite extensively and with good effect. Some advocate the cold bath, or cold shower-bath. I have used the cold wet pack in several cases with excellent results. I follow the packing by rubbing with olive oil. These cold applications are used in conjunction with internal medication.

"The one remedy, which is the main reliance of the great majority of practitioners, is arsenic. It is usually given in the form of Fowler's solution, in a gradually increasing dose. Of those who rely chiefly upon it are Smith (J. Lewis), Leese, Rayer, Martin, Gregory, Latter, Babbington, Hughes, Begbie, Romberg, Dieudonne, Barthez, Aran, Edes, Hammond and Seguin.

"Dr. Hammond strongly advocates its use hypodermically.

"Dr. Gelle says that it fails in nervous and sanguine patients.

"Drs. Romberg and Bourguignon agree with him.

"In a series of cases reported by Dr. Chapin, of New York, treated entirely by arsenic, in which he compares his results with those obtained by Drs. Gray and Tuckwell, who used the expectant plan, the result was twelve days in favor of the arsenic treatment.

"Some few are doubtful as to the value of any treatment, but the results obtained show a shortening of the diseases by judicious management and medication."

In a paper read before the Medical Society, of the State of New York, in 1882, by Dr. E. C. Seguin, of New York, on "The Efficient Dosage of Certain Remedies Used in the Treatment of Nervous Diseases," he says: "My own experience is in substantial accord with that of Radcliffe and of Begbie, in that I have almost never known arsenic to fail to cure chorea, and often very quickly. I have almost always given Fowler's solution by the stomach, in doses ranging from three to thirty drops three times a day.

"It is exhibited largely diluted with water, usually half a tumblerful, or from three to four ounces, and given after food, although I am now inclined to think that the importance of this latter caution has been over-estimated, and is not as great as is that of proper dilution. In children who are delicate, and in sensitive adults, I sometimes commence with a dose of two drops after each meal; more usually with a dose of five drops. Each day I add one drop, thus: On the first day the patient takes five drops, three times a day; on the second day, six drops, three times a day; the third, seven drops, and so on.

"Usually when a dose of from ten to fourteen drops, three times a day, is attained, some arsenical symptoms appear; these are diarrhœa, nausea, vomiting, anorexia, redness and puffiness about the eyes; one of these symptoms or any combination of them. They are not serious, and during their prevalence I have never found albumen in the urine. My practice formerly was to go back to smaller doses when this condition developed, and to again increase; but, in the last two years, I find it more advantageous to withhold all arsenic for forty-eight hours, and then resume at the last dose and begin a further increase. A remarkable tolerance is now shown by most patients, even by young children, and doses of twenty, twenty-five and even thirty drops, thrice a day, may be reached without a renewal of these symptoms. * * * * * *

"I have been taught by experience not to expect amelioration of the choreic movements until the toxic effect of arsenic are evident; and in old, or relapsing cases, not until the second period of toxic symptoms. I nearly always combine rest in bed, in some cases, with the arsenical treatment, and if the patient be wakeful or nervous at night, an occasional bed-time dose of chloral hydrate *per os*, or by enema is given.

“Simple acute chorea may often be cured in two weeks’ time by this plan, the positive contradiction to the too prevalent notions of self-limitation of chorea and skepticism as to the efficacy of drugs in this disease.

“As regards possible ill-effects from this arsenical treatment, I would repeat that, though I have examined the urine of many patients at the periods of saturation by arsenic, I have never found albumen or tube-casts. Stomatitis I have seen once, in the case of a physician’s son, whose chorea was very rapidly and permanently cured by moderate doses (about eighteen drops three times daily.) Cutaneous symptoms I have never met with, and the gastro-intestinal irritation has never been serious or permanent. My experience with the hypodermic injection of Fowler’s solution is more limited. I have made use of it in chronic chorea, and in local choreiform affections, and I would agree with Dr. Hammond, in his statement that we relatively obtain less constitutional disturbance and more curative effect from this method.”

DIPHTHERIA NOT A SEWER-GAS DISEASE.

Under this title, the *Medical Record*, May 1, 1886 (Editorial), quotes from Dr. Erwin F. Smith’s paper (Report Michigan State Board of Health, 1885), in which he claims to establish the following propositions: “(1) Diphtheria is as frequent in the country as in the city; i. e., in non-sewered as in sewerred districts. (2) Diphtheria has been more frequent and fatal in certain rural districts than in any city whatsoever. (3) Diphtheria is not more frequent or fatal in sewerred cities than in unsewerred ones. (4) Of two given cities, equally well or ill-sewerred, diphtheria, during a long series of years, may be widely prevalent in the one and rare in the other. (5) Certain sewerred cities have never suffered seriously from diphtheria, while others have been afflicted very much worse in recent years (i. e., since the houses have been protected from sewer-air) than formerly, when with the same sewers, but much less perfect plumbing, flushing and ventilation, the sewer-air found its way into a majority of the houses. (6) When an epidemic of diphtheria appears in a city, the sewerred and unsewerred portion generally suffer alike. (7) No relation of interdependence can be traced between diphtheria and the sanitary state of a city, such, for example, as enables us to predict

with almost absolute certainty, the typhoid fever mortality of a city from a knowledge of its sanitary condition, or conversely, the sanitary condition from its typhoid mortality. (8) The annual mortality from diphtheria fluctuates greatly, and this, too, in cities where the sanitary conditions are very nearly constant. (9) Diphtheria is a disease of cold weather, being most active when putrefactive decomposition in sewers is presumably least so. (10) Diphtheria is a contagious disease, transmissible from person to person and place to place, like small-pox and scarlet fever. (11) The closing of schools and other places of public gathering checks an epidemic; and the isolation of the sick from the well, with the subsequent proper disinfection of the sick-room and its contents, extinguishes it. (12) The data to be relied upon to prove a connection between sewerage and diphtheria either cover too short a period to be trustworthy, or are drawn from single cities having incomplete and defective sewerage.

“If these propositions be true, it follows as a necessary corollary that there is no direct relation between sewers and diphtheria.” These conclusions are based upon a study of the vital statistics of a large number of European and American cities and districts.—*Fort Wayne Medical Journal*.

THE NECESSITY OF PREPARATORY TREATMENT FOR CHILD-BED.

In the August number of the *American Journal of Obstetrics*, Dr. H. M. Cutts, of Washington, D. C., gives his views upon this important subject. He believes that the pregnant woman should be under the direct supervision of her medical attendant during the last month of pregnancy, at least. Many abnormal conditions may exist, and frequently do exist, which can be corrected to the benefit of mother, child and accoucheur, when labor comes. He should know of her general health, of inherited and acquired diseases, of the diseases and physiological perturbations of pregnancy, the shape and capacity of the pelvis, the abdomen and vagina, and the position, condition and number of fœtuses.

He believes that the profession should educate women up to the idea of the necessity of early engaging the physician who is to attend them, and be under his close direction. He is aware that the system

prevails in many communities, but he does not think that the profession carry their investigations far enough. He insists upon the necessity of making a close examination of the genitalia and pelvis, to ascertain all the facts concerning the individual case possible.

“Undoubtedly there are objections. It entails extra labor on the attendant, and expense on the patient. The first item will assuredly not count against it. The second, together with ignorance and negligence on the mother's part, will be its chief opponents. But make it the custom and ignorance cannot be pleaded. Educate womankind up to believe it is for her good, and expense will not stand in the way.”

We think that the author could well have added the necessity of giving some special attention to the size, shape and condition of the nipples of primipara, especially. They are too frequently neglected till the time comes for them to be put in use, when they are found sadly wanting. Too much of wheal or woe, for both mother and child, hinge upon the breast and nipples, to trust them exclusively to Dame Nature. Many hours of tedious labor, getting the new comer to nurse, many hours of pain and torture for the mother, and many cases of mastitis may thus be prevented.

SOME OF THE THERAPEUTIC EFFECTS OF CAFFEINE WHEN HYPODERMICALLY ADMINISTERED.

The *Medical Record*, of July 17th, contains the experiments of Dr. John Cochrane, of Lowell, Mass., on the use of caffeine and its beneficial effects when administered hypodermically with morphine. He had sought a preventive for the depression and wretchedness which sometimes follows the exhibition of morphine, and found caffeine all that could be desired. In several of his patients morphine alone caused a depression amounting almost to collapse. In these same patients caffeine, given with morphine, sustained the pulvet nervous system in a remarkable manner without modifying the action of the morphine. The only unpleasant effect of caffeine so used is the thirst induced. He uses it in rheumatism and other diseases where there are signs of cardiac failure. He writes: “I have frequently used this combination in cases of hysteria, of convulsions in infants and children who were

teething or suffering from meningeal irritation, etc., with the best results. In acute alcoholic mania, when the heart begins to falter on account of the duration of the insanity and its concomitants, I cannot speak too highly either of its powers to stimulate the heart or of its calmative co-operation with morphia, while maintaining the nervous system, and so preventing dangerous symptoms.

Dr. Cochrane gives about the same dose of caffeine as of morphine, as shown by the following combination :

℞	Pulv. Caffeine, et.,				
	Pulv. Morphia Sulph.,	-	-	-	aa gr. $\frac{1}{6}$
	Pulv. Atropiæ Sulph.,	-	-	-	gr. $\frac{1}{100}$
	Aq. Camp.,	-	-	-	- M XX.

ON NERVOUS PALPITATION OF THE HEART AND ITS TREATMENT.

The editors of the *Therapeutic Gazette* do not hesitate to exceptionally devote the columns intended for brief and condensed abstracts of foreign therapeutic matters to full translations, if they meet with an article combining scientific interest with practical worth to so eminent a degree as in the case of Dr. Skorczewski's paper, appearing under the above heading in the April issue of the Vienna *Zeitschrift für Therapie*. The paper, with omission of some unimportant statistical matters, reads as follows :

“Nervous palpitation of the heart is an affection which develops without any visible and, moreover, without any anatomical causes, and is based upon the very disagreeable sensation of an exceptionally prominent and augmented cardiac action. The elder writers comprised, under this category, all morbid processes characterized by an increased heart's action, while at present we exclude all affections not referring to a purely nervous cause but to anatomical alterations, and certain special lesions known as angina pectoris and Basedow's disease. After this exclusion we have left the genuine nervous palpitation known also as cardiopalmus cardiagnus.

“The augmented cardiac action is caused by a functional interference with its nerves, which, in its turn, may result either from an irritation of the cardiac accelerator (the sympathetic) nerve, or from a paralysis of the cardiac inhibitory nerve (pneumogastric), or any point of its course from the centres in the spinal cord to the centres

in the heart. But it is very difficult, and sometimes impossible, to determine the cause of the palpitation and the anatomical site of the cause.

“In spite of the frequency of nervous palpitation, few authors have gathered pertinent statistical materials. In my practice I found the palpitation in 6.4 per cent. of all patients, but much more frequently in women than in men (proportion 8 to 1).

“The palpitation appears with a varying frequency in various ages. In females I have often noticed it already between the fifth and the tenth year (1.6 per cent.), and between the tenth and fifteenth year (2.1 per cent.). Most frequently, however, the affection appears between the fifteenth and twentieth year (20 per cent.), then between the twenty-first and thirtieth year (18.3 per cent.). Between the thirtieth and fortieth year the percentage falls to 9.7, between forty-one to fifty to 3.7, and beyond the fiftieth year we find but very few cases (1 per cent.).

“In men the affection does not appear before the age of twenty, and remains stationary regarding frequency up to the forty-fifth year; later it becomes very rare (0.5 per cent.)

“Chlorosis and all the blood dyscrasias play a very important role in the development of nervous palpitation in a similar manner, as has been supposed in the case of Basedow's disease (Friederich, Grafe, Romberg, Taylor). In the cases coming under my observation 76 per cent. showed a simultaneous dyscrasia of the blood, 26 per cent. chlorosis; 35 per cent. anæmia; 36 per cent. malarial intoxication. Texta believes that in malaria the palpitation refers directly to the engorgement of the spleen, though my own observations have not confirmed this view.

“Various authors, such as Traube, Hensch, Murchison, and Frerichs, have called attention to the frequent connection of nervous palpitation with digestive troubles, a view which my own observations have confirmed.

“Botkin found the cause in one case of nervous palpitation in the so-called wandering kidney. In 101 cases of wandering kidney treated by me I observed nervous palpitation in 10.8 per cent.

“In affections of the genital tract I noted nervous palpitation in 12.1 per cent., and especially in structural alterations, such as new formations, flexions, versions, and the products of inflammation. In

dysmenorrhœa and menorrhagia nervous palpitation is a common complication.

“In nervous troubles the palpitation appears especially frequently, (86 per cent.). The following specification throws an interesting light upon this connection: General neuroses—neurasthenia, spinal irritation, hysteria, hypochondria, 77.8 per cent.; megrim, 27.0 per cent.; intercostal neuralgia, 10.2 per cent.; neuralgia of the pneumogastric nerve and myalgia, 4.3 per cent.

“The clinical appearances of nervous palpitation are very varying. The patients describe the sensation in different manners. Some are unable to describe it at all, others complain of a trembling of the heart or of powerful movements, after which the muscle appears to cease working. Sensations of pain and pressure are almost universally admitted. Being asked to localize their sensations, the patients again give wholly different answers. Some point to the region of the left side of the heart, others to the middle of the chest or to the entire left side, others, again, to different extremities. Some describe their sensations as proceeding from the heart and wandering over the whole left side of the chest, and, occasionally, the palpitation is said to be felt most on the neck or along the spinal column. The palpitation paroxysms differ also in the same person in duration and frequency. Preissendörfer observed paroxysms, lasting several hours, and Gerhardt, some lasting several days.

“In the cases coming under my observation I noted three different groups: 1. Those with an augmented apex-beat; 2. Those with an increased frequency of the beat; 3. Those without any alteration of the heart's action.

“The clinical course of the palpitation is usually parallel with that of the affections which have caused it, the palpitation remaining, in exceptional cases, only after the disappearance of its causative agencies. In such cases our affection calls, of course, for a special treatment. A long duration of the palpitation may give rise to serious troubles, and predisposes to anatomical alterations.

“The therapeutics of nervous palpitation, when resulting from other primary troubles, must first be directed to the removal of these. It is especially important to do away with any existing abuse of liquids, such as coffee, tea and alcoholic drinks, and to observe strict dietetic and hygienic precautions. Indulgence in smoking is particularly

objectionable. The affections of blood-dyscrasia (chlorosis, anæmia, malaria), of the nervous, digestive, and genital apparatus, call, of course, for an especial treatment. For the removal or lessening of the intensity of the paroxysms various methods of treatment have been recommended.

“Preisendörfer advocates pressure upon the pneumogastric nerve, while Mühlberger recommends massage of the epigastric region, together with derivative drugs.

“Schröter employed, successfully, cold or ice applications to the heart, and Rosenbach ether locally for the same purpose. Digitalis, which is recommended by Schröter, is wholly disapproved of by Leyden in this affection, also in Basedow's disease.

“Leyden claims that narcotics, especially morphine, given internally, or better, hypodermically, give gratifying results in the paroxysms of angina pectoris, based upon sclerosis of the coronary arteries, and Rosenbach and Schröter obtained good results with these remedies, also, in nervous palpitation. Chloral, chloroform and ether also have the reputation of favorably influencing the paroxysms. The first remedy is to be given internally, the two others, both as inhalations, and internally in large doses ($\frac{1}{2}$ to 1 teaspoonful).

“Rosenbach recommends, also, bromide of potassium in large doses (30 to 45 grains) and iodoform (3 to 7 grains). Nitrite of amyl, first introduced seventeen years ago by Lauder Brunton, enjoys still an excellent reputation. Hay recommends this remedy, and also nitrite of ethyl, nitrite of methyl, and particularly nitrite of sodium.

“Hammond, Hay, and Green speak also well of very minute doses of nitro-glycerin (1 to 3 to 10 drops of a one per cent. solution).

“Omitting all other drugs, which, though recommended from various physicians, have never attained any popular hold in the treatment of palpitation, I proceed to allude to the results which the above remedies have given in my hands.

“Pressure upon the pneumogastric nerve, massage, and cold applications appeared in no way to favorably influence the affection. Morphine, though a great stand-by in all painful troubles, is not well borne by patients of the nervous and hysterical type, and therefore its exhibition in palpitation is little recommendable. Nitrite of amyl and nitro-glycerin give but doubtful results when first exhibited, and scarcely any later. The following measures constitute my routine

treatment. During the paroxysm of the palpitation I order cold applications to the region of the heart, provided they are—what is not always the case—well borne by the patient. Besides, I prescribe antispasmodic remedies, among which I prefer a solution of bromide of sodium, 15 to 30 grains, to be given either at once or in two doses. I also give the patient aqua laurocerasi, with equal parts of tincture of valerian (or of tinct. cann. indic. or tinct. castorei sibirici), to be taken in doses of 5 to 10 drops every few minutes. In frequently returning paroxysms I order a powder, consisting of bromide of sodium (7 grains) and quinine ($1\frac{1}{2}$ to 3 grains), to be taken three times daily before each meal, and Fowler's solution (5 to 10 drops in a spoonful of sweetened water after the meals). This medication is to be kept up for several weeks.

“Electricity gives undoubtedly good results in this affection. Few therapists, however, (like Duchenne), advocate faradization; the majority (among these Eulenburg, Huchard, Meyer, Remak, and Ziemssen) prefer galvanization. Ziemssen has directly proven, by experiments, that the constant current influences the heart like the striped muscles, and that the effects of the current, if applied to the thorax walls, are just the same as if applied to the heart directly. Ziemssen obtained wholly negative results from faradization. The application of the current can be effected in various manners. Ziemssen recommends to place one electrode to the sternum and the other to the back, at a height corresponding to the position of the heart. Eulenburg places the anode over the heart, and the kathode like Ziemssen, or the anode to the sternum and the kathode to the neck. Erb advocates the same method.

“In the patients treated by myself I have invariably placed the anode on the neck, in the region of the nerve-trunks, and the kathode on the apex. After a couple of minutes I could always notice a considerable decrease in the frequency of the apex-beat (10 to 30).

“After the application the patients usually pronounced their condition improved. Eminently successful results could be obtained in the paroxysms returning several times daily, a few faradic applications usually sufficing to either remove the paroxysms wholly or to lessen their severity. Satisfactory results were likewise obtained in intercostal neuralgia and cardialgia.

“It is possible that the great success of galvanization obtained in my patients is partly to be attributed to the simultaneous use of

medicinal waters (chiefly iron), which I invariably prescribe in this affection. It is an indisputable fact that iron exercises a tranquillizing influence upon the action of the heart, not only in nervous palpitations, but also in developed cardiac defects, and even in incomplete compensation.—*Therapeutic Gazette*.

PERLÈCHE: A DISEASE SUPPOSED TO BE NEW

M. Justin Lemaistre, professor at the *École de Médecine*, at Limoges, describes a contagious affection occurring among school children in some country districts in France, which he thinks has never before been described, although the peasants have known it for some time under the name of *perlèche*. It is of a comparatively frequent occurrence in the country districts of Limousin. It appears at the angles of the mouth, as a small abrasion, which in a short time extends along the labial commissures, forming cracks, or fissures, which give rise to pain and some hæmorrhage when the mouth is opened wide. The lesion has many of the objective characters of certain mucous patches and commissural rhagades in syphilitic children. The malady is a simple one, without constitutional disturbance, and usually lasts from fifteen to thirty days.

Lemaistre has frequently examined the exudation on the patches with the microscope, and unhesitatingly pronounces the affection due to a schizomycetous parasite of the globular group of bacteria. He has successfully cultivated the microbe according to the most recent methods. In addition to the spheroidal bacteria, he has detected, in the cultivation products, numerous long chaplets, or streptococi, having the power of very rapid multiplication. To the latter he has given the name *Streptococcus plicatilis*. Following up this line of investigation, he examined the drinking water used at the different schools in the district. In one of the schools the disease was first noticed in a child, who lived at some distance. The water supply at this child's home came from a fountain, which was found to contain streptococci in abundance. Under cultivation, these microbes behaved exactly like those from the patches on the affected children. The spread of the disease among the children, at the school, was now easily explained. The pupil, who lived at a distance, had deposited on the common drinking utensil some of the germs swarming in his labial folds, which he had obtained from the water he drank at home, and

thus infected the rest of the children, who had to drink from the same utensil. Out of 5,500 children, attending the thirty-two primary schools of Limoges, examined by author, 312 (1 in 17) were affected with *perlèche*. The treatment, like the disease, is simple; merely touching the patches with sulphate of copper, or alum, is quite sufficient to insure a cure.

The foregoing is particularly interesting to those who pay any attention to school-hygiene, and forcibly illustrates the evil of allowing a number of children to make use of the same cup or mug. Any question as to whether the author's assertions that the *Streptococcus plicatilis* is the cause of the disease, and that the affection has not before been known to the profession, will stand criticism, and does not detract from the weight of his argument—that the school-hygiene is sadly neglected in France—may we not add, in America, also? As to the first assertion, we fully concur in a suggestion made in a recent number of the *Progrès Médical*, that the author could have settled the point by inoculating one of the unaffected children with the cultivated microbes, and, considering the mildness of the affection, he would have been fully justified in doing so. Bearing in mind the numerous bacteria of various forms, that find a lodgment in the healthy mucous membrane of the mouth, we must hesitate for imputing special pathogenetic properties to any individual form.

The stomatitis described by Bergeron, 1855, as, occurring in an epidemic from among soldiers, as the result of over-crowding and contagion, seems to have been much severer than *perlèche*. It was attended with some febrile re-action, and local changes first appeared on the gums, from which they extended to the labial commissures. We know the predilection herpes has for the commissures, and how in a short time the little vesicles burst, run together, and form painful fissures in these situations: and for the contagiousness of some forms of herpes there is no lack of authority. Vogel does not even consider it essential for its propagation that any of the affected persons should have suffered from herpes, originally, thus implying that it may arise from mere dirtiness. While not asserting that *perlèche* and herpes abials at the commissures are identical, we think their similarity close enough to call for further investigation before accepting M. Lemaistre's proposed addition to nosology.—*New York Medical Journal*.

THE INELIGIBILITY OF ANTIPYRIN IN PNEUMONIA.

Observations of untoward effects produced by newly-introduced drugs, or of their failures in certain affections in which they have been recommended, ought to claim the interest of the practitioner as highly as reports on their medicinal virtues and efficacy. It is a positively objectionable feature of many contributors to the therapeutic press that they explicitly discuss the advantages of drugs, and dwell on the constant expansion of their sphere of usefulness, while paying too little attention to their objectionable aspects, and the instances of their clinical failure. The *Therapeutic Gazette* has repeatedly opened its columns to this unjustly neglected field of therapeutic knowledge. In the case of antipyrin, which is gradually becoming a popular antipyretic, it is of course very desirable to know what the drug cannot do and to which untoward symptoms it can eventually give rise.

Dr. Posadski (vide *Ieshenedjelnaja Klinitscheskaja Gazeta*, No. 30, 1885) reports that he has treated twenty-five cases of croupous pneumonia with antipyrin, giving, daily, doses of 15 grains to 2 drachms, and single doses of 7 to 30 grains. Simultaneously, he treated twenty-three cases of croupous pneumonia with calomel, in order to be enabled to compare the results of both forms of treatment. Calomel was given in doses of $\frac{1}{8}$ grain four times daily. All patients were vigorous men, ranging between 26 and 30 years of age, and were admitted for treatment at the third or fourth day after the beginning of the affection. The average duration of the pneumonia in the patients treated with antipyrin was 8.1 days; in those treated with calomel, 7.1 days. In the later set of patients, the termination of the affection presented invariably what Posadski calls a critical decline; in the former, a gradual resolution. In other words, the febrile symptoms disappeared completely, and sooner under the calomel treatment, and gradually and later under the antipyrin treatment. In five instances collapse was observed to follow after the use of antipyrin, a condition to which calomel, of course, could never give rise. The effects produced by the two drugs on the pulse and respiration were not materially different. In four cases antipyrin caused vomiting, and in two others a peculiar measles-like eruption, of a very itching nature, affecting both skin and mucous membranes. In eleven cases the urine presented a singular dark cherry coloration, and contained a large quantity of antipyrin. The bodily weight showed a greater

daily fall under calomel than under antipyrin, though its rise proceeded more quickly under the former drug.

The action of antipyrin on the temperature curves is, according to our observer, neither a constant nor a prompt one, and alongside of the above-mentioned other disadvantages does not justify the exhibition of the drug in pneumonia.—*Therapeutic Gazette*.

POTASSIUM PERMANGANATE IN AMENORRHŒA.

To the Editors of the Therapeutic Gazette:

GENTLEMEN:—In your June issue is an article on the use of permang. pot. as an emmenagogue, and asking for results. My conclusions, after using it in about fifty cases, are as follows:

1. It acts with certainty in about seventy per cent. in selected cases.
2. It may be given at any time, but preferably one or two hours after eating, as it is not so apt to sicken the stomach. I don't think it is any more efficient when given on an empty stomach.
3. I have used the sulphate in a number of cases with less certain effect; the result attained, however, may have been accidental.
4. In most cases it produces an exhilaration of spirits.
5. It has a decided tonic effect.
6. It will become an indispensable therapeutic agent.
7. Its disagreeable effect on the stomach is best relieved by a combination of

Cerri oxalat.,	-	-	-	-	gr. i.	
Cocaine hyd. chlor.,	-	-	-	-	gr. $\frac{1}{6}$	
Bismuth, subnit.,	-	-	-	-	gr. v.	
Pulv. ipecac.	-	-	-	-	gr. $\frac{1}{10}$	M.

Ft. cachets, one every two hours.

Respectfully,

BENJAMIN MARSHALL, M. D.,

Col. Phys. and Surg., N. Y.

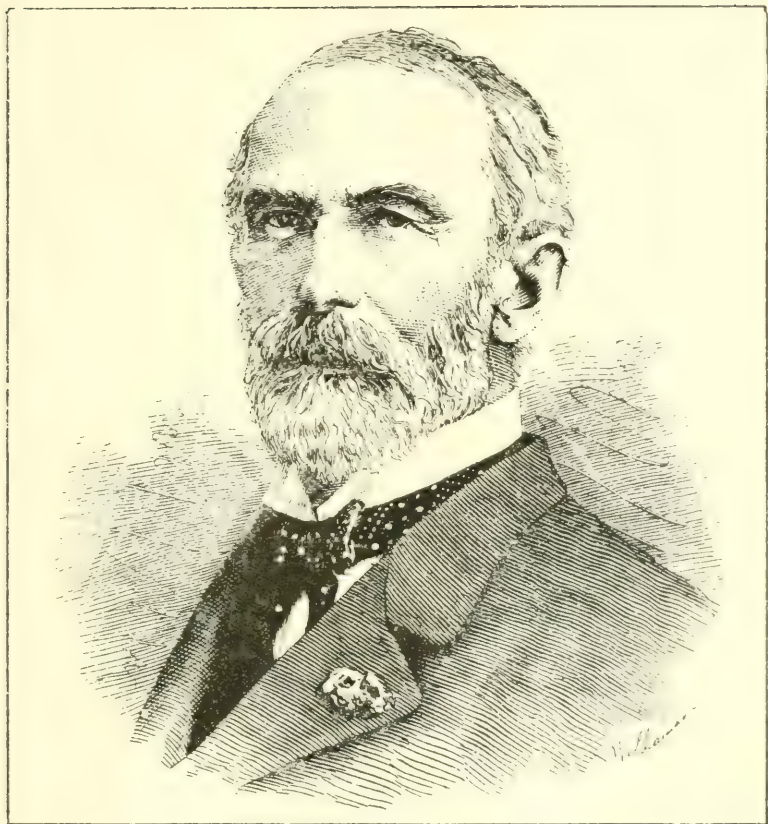
Editorial.

FRANK HASTINGS HAMILTON, M. D., LL. D.

On Monday, Aug. 11th, there died, in New York, the greatest surgeon that city had ever known, Dr. Frank H. Hamilton. He was great in knowledge, great in reputation and great in heart. While possessing such a superior knowledge, he was always modest and listened attentively to instruction from those qualified to impart, but with the imposter and charlatan he had no patience. It is a strange coincidence that the two great men—Flint and Hamilton—who have labored a life time together, and whose names were ever associated, should have departed this life at about the same time. Dr. Hamilton had one marked characteristic—candor and fair treatment of professional brethren—ever ready to defend or assist a physician in trouble, or when unjustly accused of error. To the profession he was best known through his book on “Fractures and Dislocations;” to the general public, through his connection with the Garfield case. Besides his works on surgery, which had just been revised and re-published, he was ever before the medical public in articles in the various medical journals. One of his latest contributions was an article in this journal, on “Defence of Army Surgeons during the War.” But to be noticed in the public press, either favorably or otherwise, was very distasteful to him. He was greatly annoyed at the constant mention of his name in connection with the Garfield case. He died beloved and renowned as few are.

We are indebted to the Buffalo *Morning Express* for the cut which we print herewith.

“Dr. Hamilton was born in Wilmington, Vt., in 1813, was graduated from the medical department of the University of Pennsylvania in 1833, and first settled in Auburn, N. Y. He was a professor in surgery at the Fairfield Medical School in 1839,



FRANK HASTINGS HAMILTON, M. D.

and in the following year at the Geneva Medical College. Removing from Auburn to Buffalo, in 1849, he became associated, two years later, with the late Dr. Austin Flint and Dr. James Platt White, in establishing the Medical Department of the University of Buffalo. There he taught his favorite branch—surgery.

“ He removed to Brooklyn in 1860 and was the first professor of surgery in the Long Island Hospital. Early in the Civil War, in 1861, Dr. Hamilton became surgeon of the 36th New York Regiment, and was made Brigade Surgeon after the battle of Bull Run, and surgeon of Gen. Keyes’ corps in 1862. A year later he became a medical inspector of the United States Army, in which position his work was notable.

“ Of the Bellevue Hospital Medical College he was one of the founders in 1861, and professor of surgery there from that time to his resignation in 1875. As a writer on medical subjects, Dr. Hamilton was voluminous, learned and an accepted authority.

“ Dr. Hamilton, in December, 1885, had severe and repeated pulmonary hemorrhages, due to fibroid phthisis, and since then has been failing in health. He has not been a robust man, but possessed wonderful vitality and will-power, which enabled him to do a tremendous amount of work. Within the past two or three weeks he began to grow very feeble. He suffered from innutrition, with no advance in his pulmonary trouble. This gradually sapped his vitality, and his weakness rapidly increased. His mental faculties, however, remained remarkably clear, and he had a complete understanding of his own ailment and its inevitable fatal ending. His own case he discussed, with his attending physicans, in a calm, impersonal way.”

ENTRANCE EXAMINATIONS FOR MEDICAL COLLEGES.

The opening of the annual session of medical colleges is near at hand. Annual announcements have been freely distributed, offering liberal inducements to all who apply. Medical students scan the claims thus presented, naturally, and often from necessity, inclining to economy of expense and of time, and also giving heed to the facility with which the medical degree can be obtained. The commercial spirit of the age controls aspirants for medical honors, as in other departments of life. If colleges make bids for numbers, their terms of admission and curriculum of study are trimmed to catch the breeze. As a consequence, the medical colleges of this country are filled with all sorts of material, and the ranks of the profession receive an annual influx of half-educated and imperfectly prepared men, the majority of whom, fortunately for the public, find their mistake in the choice of a vocation, only after testing their qualifications in the crucible of practice and experience.

Indications of a reaction from this state of things, the fruition of which has been a disgrace to the American profession, and demonstrates the faults of our system of medical education, have been cropping out for several years, assuming a definite shape in the higher curriculum of study, and in the entrance examinations of several of our leading medical schools.

Harvard and Yale have placed an excellent example before the profession in establishing an entrance examination, and also a graded course of study. And the conditions of admission are not, in our opinion, any too severe. Harvard requires the student to "pass a satisfactory examination in English, Latin, physics, and some one of the electives, Botany, French, German, elementary algebra or plane geometry." Yale requires "algebra to quadratics, Euclid, two books, the metric system and elementary physics." Niagara University, the medical department of which is located in this city, requires an "examination in the branches of a good English education, including mathematics, English composition and elementary physics, or natural philosophy and in Latin,

including 'Arnold's First Latin Book,' as its equivalent." This growing institution has a graded course of study, patterned after that of its sister universities.

It is not necessary to enter upon the reasons for these steps for higher medical education. Will the profession support the movement? Heretofore the responsibility of determining the intellectual qualifications of students in medicine has devolved upon individual members of the profession. The result is apparent. If the present state of medical education is primarily due to indifference or carelessness upon the part of individual physicians, and if medical colleges have prospered by catering to such a lamentable want of foresight, then it may be inferred that any movement, which has for its ulterior object the increase of professional culture, must depend for its support upon the educated and cultured members of the profession. And here we may expect that selfish interests will have their influence. The discreditable spectacle, observed in this city within a few years, of an organized effort within the profession, instigated and backed by the faculty of a medical college, in which higher education is considered a chimera for visionary enthusiasts, against the establishment of a medical college, pledged to higher medical education, demonstrates plainly that sympathy and support cannot be expected from a large and influential portion of the profession.

We have an abiding faith in the ultimate success of these principles. The initial steps have already been taken by several of the best colleges. The fact that an entrance examination, a graded course of study, and a rigid examination for the degree, by a board, independent of the teaching body, are adopted by several schools, has a significant meaning. The advance needs to be backed up by a strong professional sentiment, which has already taken root and is growing with remarkable rapidity in this country. If, against mercenary and selfish influences, gratifying progress has been made within the last decade, we may safely anticipate that the general recognition of the necessity of superior intellectual culture for the matriculant in medicine will be established 'ere another decade has passed away.

THE NINTH INTERNATIONAL MEDICAL CONGRESS.

"The *Lancet* mentions a number of well-known British Medical men, who entertain the intention of going to the Washington Congress, including, Mr. John Simon, Dr. B. W. Richardson, Dr. Thudichum, Sir James Paget, Sir Andrew Clark, Sir Spencer Wells, Professor John Chiene, Professor Fraser and Sir William Turner," and adds. "It is not America alone that is interested in the success of the meeting at Washington, but the profession throughout the whole world, and, we might add the world itself. When our profession meets, internationally, it is of good omen. We not only stimulate fraternal and scientific rivalry among ourselves, but every thought in advance and every medical discovery is a great boon for the human race and for all nations. We urge on members of our profession in the empire to strain a point to be at Washington, on or before September, 1887, where, if report is to be trusted, a very hospitable reception awaits them."—*New York Medical Journal*.

This list, as we readily see, contains the names of many distinguished British physicians and surgeons; doubtless many more equally as celebrated could be added to the list. From Germany, France, and, in fact, from the whole continent, come notices of this same tenor. Many, no doubt, will stay away on account of the unseemly controversy which has arisen concerning the organization of the congress. Without assuming to decide the question, we do most earnestly entreat our fellow practitioners to forget the past and join in giving our brethren from abroad a hearty welcome, and to do everything in their power to make this congress a success and "a great boon for the human race and for all nations."

415 PEARL STREET, Buffalo, N. Y.

Dear Doctor:—I take this method of informing you that I make a specialty of Diseases of the "Genito-Urinary Organs," to which my practice is very largely limited.

Many years' study and practice in the large Philadelphia and

United States Marine Hospitals, as well as in private, has given me unusual opportunities for observation in this field.

My object in communicating this fact is to ask that you bear it in mind, and should any cases arise in your practice, which from their character, complications, or other reason you may not feel inclined to give your time and attention to that you will kindly refer them to me.

Yours very truly,

W. H. HEATH,

Surgeon to the Sisters of Charity Hospital, Buffalo, N. Y.

As will be seen from the above, Dr. Heath has had a large experience in this branch of medicine. Indeed the recognition by the profession in general of the Doctor's attainments in this direction is what, undoubtedly, has led him to make this step. It is unnecessary for us to add that he is well qualified to practice this branch as a specialty. Specialties, in this age, seem to be a necessity, both because superior knowledge is needed and because physicians practicing a specialty are willing to devote more time to complicated cases. We wish the Doctor success.

WE are gratified to chronicle the full restoration to health of our late editorial confrere, Dr. Herman Mynter, who sailed for Denmark, on the 29th ult., to be absent several months. We learn that it is Dr. Mynter's intention to devote the autumn and winter to study and travel, and to return to our city the coming spring to engage in practice. We wish our esteemed brother, the success which he so richly deserves, and, on his return to his adopted city, the full restoration of his former large and lucrative practice. We can assure him that the medical profession of this city, with one voice, tender their best wishes for health and happiness, a hearty bon voyage and a safe return, with physical forces equipped for the active duties of the profession which he has so much adorned.

Reviews.

The Disorders of Menstruation. A practical treatise, by JOHN N. UPSHUR, M. D., Professor of Materia Medica and Therapeutics in the Medical College of Virginia. New York and London: G. P. Putnam's Sons. 1886.

This is a little book of 200 pages, but it contains a great deal of instruction, and is written in a very attractive style. It is intended as a "Student's Manual," but there are few practicing Physicians who will not read it with interest and profit.

A System of Practical Medicine by American Authors. Edited by WM. PEPPER, M. D., LL. D., Provost and Professor of Theory and Practice of Medicine in the University of Pennsylvania; assisted by LOUIS STARR, M. D., Clinical Professor of Diseases of Children. Vol. v. Diseases of the Nervous system. Philadelphia: Lea Brothers & Co. 1886.

This, the last volume of this great work, is devoted entirely to the consideration of the diseases of the nervous system; and, in its 1,300 pages, the various functional and organic derangements of the nervous system are exhaustively treated by such distinguished authors as Seguin, Charles K. Mills, H. C. Wood, Weir Mitchell, McLane Hamilton, Spitzka and others. Articles from such authors need no commendation, and space forbids our noticing, at length, this admirable book; it is sufficient to say that it is in every way worthy of a place with the other volumes of the American system of medicine.

The appearance of the successive volumes has called forth the highest praise from both American and European journals, and now the entire work is completed we cannot refrain from again expressing our warm admiration. We look upon it as one of the greatest works on practical medicine in the English language, and a glory to American medicine. Possibly there may be a few Teutonophilists who assert that there are translations of German works which are superior, but the vast majority of the profession will, we believe, agree with our opinion. Its 6,000 pages embraces the whole domain of medicine, with the exception of midwifery, and matters strictly surgical, and it may be truly regarded as a "complete library of practical medicine," and the general practitioner will require little else in the daily round of professional duties.



VOL. XXVI.

OCTOBER, 1886.

No. 3

Original Communications.

*TREATMENT OF HERNIA.**

By WILLIAM H. HEATH, M. D.

Surgeon to Buffalo Hospital of Sisters of Charity.

Among the anatomical features bearing upon inguinal hernia are to be noted the obliquity of the so-called canal, not only in its direction from above downward and inward, but in its slanting direction, through the abdominal walls, constituting an arrangement not unlike that existing for the entrance of the ureter into the bladder, or the indirect incision occasionally made in evacuating certain fluids. It partakes, therefore, more of the character of a valve than of a canal, which in fact does not exist save as an abnormal condition, and firm uniform outward pressure should in the normal, tend to approximate its anterior and posterior boundaries.

Frederick Treves puts it, "a tract of tissue so arranged as to permit of a body being thrust along it—'a breach,' 'not a doorway.'"

The integrity of this valvular arrangement depends not only on its fascial attachments to the adjacent osseous parts, but

*Read before Buffalo Medical Club, May, 1886.

upon a firm connective tissue which binds the parts mutually together, cements them so to speak, and especially the anterior and posterior walls, and at the deeper part, consequently the formation or protrusion of a hernia is only possible through severing this tissue, which normally has the important function of keeping the two walls in approximation. Under these circumstances the internal ring becomes more pronounced and permits pressure to be exerted against the exposed portion of the anterior wall, while the posterior or internal one is forced inward and away from it at the expense of the tissue in question. Tissue tonicity and strength therefore, is correctly looked upon as having important etiological significance.

The mobility of the posterior as contrasted with the stability of the anterior, and the traction capable of being exerted by the rectus tendon is also to be noted. It permits the margin of the internal ring to become prominent, allows the canal to be effaced in long-standing hernia, and modifies certain forms of treatment.

The frequency of the infirmity creates the strongest interest in its etiology.

The influence of age, sex, occupation, length of the mesentery, and other causes, are fully discussed in surgical text-books. Mr. Wood ingeniously advances the opinion, that in almost all ruptured individuals, there exists a predisposition due to defective formation of the structures of the groin, the consequence of a late descent of the testes, and which is manifested by a loose and bulgy condition of the part, patulous orifices, etc., and that depending on the degree of this defect we have congenital hernia or a predisposition to such an extent, that slight causes are sufficient to effect the injury. This theory is strengthened by the fact that hernia occurs more frequently in men, and in the inguinal region than in women, and that it occurs 33 per cent. more frequently on the same side—the right—that undescended and incarcerated testes occurs. It may be said, however, that hernia are not uncommon in groins that appear in every way normal, and that it gives the idea of a surprising and unusual irregularity in the descent of the testicle, particularly as the delay is generally the consequence

of some pathological condition, such as inflammation, adhesion, etc.

Its prevalence among the aged, development among convalescents from exhausting diseases, occurrence in those with apparently sound groins, leads to the opinion that it is more than a mere mechanical lesion, and not due to any single factor, but to the result of a combination of conditions, found not only in the abdominal wall, but in the viscera and their attachments, and very considerably to what has been termed tissue tonicity.

The extent of the condition is simply astonishing, and it is not too much to say that, judging from the number of trusses sold, which only represents reducible hernias, and among those who can afford the purchase, the reports of the War Department, text books, statistics furnished by truss societies and other sources, that many millions of men in this country alone, are suffering and are more or less disabled from this defect. Its prevalence also accounts for and affords a rich field for quacks and charlatans, who prey upon the ignorance and sensibilities of this class. In almost every newspaper may be seen the advertisements of traveling hernia doctors, patent trusses guaranteed to cure, and the like.

How thorough then, should be our knowledge and our ability to recognize and treat the malady in its various conditions; yet owing to our miserable system of medical education, I doubt if a large majority of those most likely to be called upon to apply this knowledge, are not sadly wanting, and that many lives through ignorance, are rendered miserable and occasionally lost.

As commonly presented, there should be no difficulty of diagnosis. Blunders are observed, however, every little while, though very often from carelessness, no doubt; within a year I have known hydroceles and varicoceles sent by reputable physicians for trusses, orchitis mistaken for strangulated hernia, and a hydrocele operated on for irreducible herina.

What then, should be our treatment of this condition. I must begin by stating that without doubt the day has passed

when the duty of the practitioner, to his patient, terminates with referring him to a druggist to purchase a truss. On the contrary, it can be truthfully stated that it is now in the power of the surgeon to relieve and cure a very large number of those who yet are being consigned by their over-conservative or lethargic medical advisors to wearing a truss, with all its attending discomforts and objections. For reasons well known, up to a comparatively recent time, no operation for the permanent cure of hernia enjoyed, in any sense, the full confidence of the profession, and though no field in surgery has offered more inducements, in none has more work been expended with so little return, operations having been devised again and again only to be abandoned, even by their authors. It is, however, a fact beyond doubt that antiseptic surgery, improved technique, the advance in the treatment of wounds has had its effect in modifying this opinion, and as a consequence, these views are no longer entertained even by some of the most conservative surgeons. Though further statistics are needed to completely establish and justify the proceedings advocated, those that have appeared are certainly of the most encouraging sort.

In view of these facts, it is to be stated that for the average inguinal hernia capable of being securely and comfortably retained by means of a truss, with the exception of the seldom practiced Heatonian method, the application of which, however, is extremely limited, an operation is not as a rule to be advised. To this, however, depending upon peculiar individual conditions, age, occupation, and other considerations, many exceptions are to be taken.

Such of these reducible and retainable hernia, as one of comparatively recent origin, or of reasonable small size, and very particularly where the relative position of the rings to each other are unchanged, the patient being in good health other things being equal, the Hetonian method offers a safe and permanent cure, more satisfactory to the patient as well as surgeon than any other. In forty-nine cases upon which I have operated, I have never witnessed a serious symptom, or anything to cause

a regret, and, with certain exceptions, occurring early in my experience, I have every reason to believe in at least 80 per cent. the results were permanent, though my cases have been mainly among the working class. No better evidence is needed, in the absence of the opportunity to examine them in person, than that these very cases have years afterwards referred others to me, while here in Buffalo, a number have since been engaged in daily laborious work without a return of the protrusion.

The traditional prejudice against it and its author, intensified by the offensive style of Dr. Warren's book and claims on the subject, together with its failure to accomplish all claimed for it when tried by the regular profession, the result, however, of its indiscriminate application have altogether combined to relegate it well nigh to oblivion, nevertheless its value in its limited sphere of application is without doubt, and is recognized at home and abroad by many excellent surgeons. Of the operation its merits and objections I have already written, so will not dwell upon it save to remark that it meets the indications and is probably based upon sounder pathology than any other method, viz.: that by creating an adhesive inflammation, proliferation of tissue and contraction, it brings together the anterior and posterior wall of the valve or canal, and occludes the entire passage, without accomplishing which, no operation can be said to be correct in principle.

Reducible hernia, which from the size of their openings, their bulk, or other reason, cannot at all, or without difficulty or with safety and comfort be retained within the abdomen by means of a truss, and particularly in those under middle age, are invariably cases for operative treatment, and such cases are in general prepared to assume some risks. The dangers ever present and perspective in these cases and which cannot be averted are too well known, while the fact that every case of death from strangulation is one from a clearly preventable cause, warrants such risk as attend operative interference.

In these cases many operations have been suggested, the history or description of which would be tedious, and from their complexity difficult to understand.

The best, safest and the one holding out the most inducement from every point, is that now known as the direct method of dissection, and which consists in exposing the external ring and sac, which is isolated, ligatured at its neck, and occasionally removed, following which the pillows of the ring are sutured with wire or catgut, after freshening their edges, or no, as the judgment of the operator may incline. As practiced to-day it is not exactly the operation of any one man, but has been advocated by many, though to the senior Gross is probably due the honor of suggesting and operating. It is variously modified by surgeons in leaving or excising the sac, either in part or entirely, or ligating in one or several places, according to taste or the peculiarities of the case. The most difficult feature consists in dissecting out and isolating the sac, especially from the coverings of the cord from which it is at times inseparable, and which is more easily described than accomplished. Closure of the external abdominal ring is the bulwark upon which security depends, and though unphilosophical and when any canal remains inferior to Wood's suture which closes the entire passage it is practically satisfactory, and should furthermore be performed in every case of herniotomy for strangulated hernia.

The class of hernia just defined when left untreated sooner or later become irreducible, by which is understood that in consequence of increased bulk, contraction of the neck of the sac, or adhesions within or without it, it cannot be returned to the cavity of the abdomen. This state at one time of its existence preventable, is always one of danger from strangulation or injury. From their tendency to increase steadily in size, enormous cases are occasionally met with, one of the most notable occurring in the person of the distinguished historian Gibbon, whose pylorus rested at the mouth of the sac. Operative treatment, with a view of rendering it either reducible or obtaining a permanent cure, is, in the majority of instances, unjustifiable, on account of the difficulties and hindrance to success and the danger to life, conditions which are always present in varying degrees.

Retention by means of an abdominal supporter in corpulent persons, to diminish pressure from above, a suspensory, to retain

the protrusion from dragging and preferably of some hard material, is the best line of treatment, to which may be added a quiet careful life, avoiding intestinal derangement and anything like sudden activity. I am aware that some surgeons think otherwise, and take, what may be called, desperate chances. In the light of my own experience and observation, however, I am not prepared to take these chances, and consider it much the best to palliate the evil, particularly in adults.

All hernia, sooner or latter, become strangulated, the average duration of inguinal being about twenty years. This strangulation occurs under two different forms, differing in mechanism, symptoms and treatment. In the one acute strangulation, it occurs immediately upon descent; perhaps the very first, its essential characteristics being violent symptoms, sudden onset, occurring in an enterocoele, and, as a result of sudden arterial occlusion, mortification of gut.

The other, on the contrary, occurs generally in old irreducible hernia, containing omentum, as well as intestine, its essential characteristic, in comparsion, being slow and chronic and due variously to alterations in size of tumor, adhesions, and but rarely to the descent of additional viscera—the alterations in the tumor being more the consequence of various obstructions than arterial occlusion. One or two points in the mechanism of acute strangulation seem not to be generally understood.

Whether it be a hernia, strangulated in its formation or occuring to an already existing one, essentially it is the same, the conditions present being a tumor, with obstruction of its circulation and compression of its nerves, at a point designated as the neck generally, and the result of sudden increase in its size. The conclusion generally inferred is that this neck is much the active agent in bringing this about, whereas nothing of the kind is the case, it is in fact, a passive agent, incapable of strangulating anything, although it has been said muscular fibres are occasionally found there.

This sudden increase in size at its narrowest part, causing a gripping or pinching as it were, and which is the whole difficulty,

is mainly due to the scarcely heard mentioned mesentery, which belongs to the knuckle of gut forced down. This should be clearly understood, it is not a new coil which gets down into the sac in addition to the one already down, thus making two coils, but is more of the same coil. In the case of an existing hernia redescending, the original coil and mesentery were not sufficiently bulky to cause any difficulty when down, but the additional section brings with it a further and proportionately larger instalment of mesentery, which is crowded or pulled in where there was barely room for what was present before; it is also to the interference of the circulation, through mesentery that congestion and strangulation is due, rather than to compression of gut itself.

The general line of treatment in this condition is, in the main, clearly established; though in practice is often deviated from.

The first interference is in the form of taxis, concerning which it may be said that notwithstanding all written and cautioned concerning it, is to-day made too roughly, too prolonged, and often ignorantly, and that it contributes to the fatality of herniotomy more than any other cause. That it is over-done there can be no doubt, the temptation to do more or try again being very considerable. Of adjunct means and absurd therapeutics, peculiar positions, local applications, etc., which have for their object contraction by cold or relaxation by heat, little need be said, their value, depending entirely on the character of the strangulation. Aspiration, however, the most valuable of all our means to reduce the tension and volume of gas, is hardly ever used. By it fluid as well as gas can be withdrawn, and is decidedly safer than prolonged taxis, and I have used it a number of times, without disappointment.

As a matter of fact it is interesting to note that old hernia are often capricious and return of their own volition after the most willful attempts, also that patients, the subjects of hernia, are frequently adepts in returning their own protrusions, and should be encouraged to make moderate trial to relieve themselves.

As much of the mortality of herniotomy can be attributed to delay, and as there are no symptoms by which the condition of the hernial contents can be positively known, and therefore, how late operative measures can be deferred, it should not be left as a last resort but should be resorted to early, certainly before tenderness is added to tympanites. Properly performed it is not dangerous, in fact, if the sac be not opened it becomes merely a modified taxis, nor should it be omitted in the most desperate cases, recoveries occasionally taking place under the most unfavorable conditions, in fact so long as the patient is not moribund it should be practiced.

So long as there are cases which only admit of palliative treatment, and so long as we can bring about a cure in a large number of ruptured children by the use of trusses, so long will their construction and application be a matter of importance and it is to be regretted that their selection and fitting, a matter not in any way undignified or unprofessional, should have been allowed to pass from the hands of the surgeon into the domain of druggists and others who only rarely have a correct knowledge of the infirmity, no professional reputation to sustain, and whose only object is generally the sale of the appliance. In consequence of this some hernia are injured, others made infinitely worse, and very many unnecessarily uncomfortable. Without going into the matter at all, in a general way, it may be stated that a truss should combine efficiency and safety with comfort; efficiency in retaining the protrusion within the abdomen and prevent its escape under all ordinary movements; safety in accomplishing this without injury to the parts; with comfort that it fit like a garment and produce no discomfort. These points are best obtained by a suitable spring and pad, which is the most important part and which should be oval, to allow a better adaptation and press over the entire canal, convex to a moderate degree and of hard wood, to better maintain its shape and position. Soft pads are objectionable in that they absorb moisture change form and are dirty, ivory ones in being too slippery and expensive, hard rubber in their likelihood to

chafe. Of the many varieties found in the shops those that are double and fasten behind are in general, superior in the points named. The well known "Lyman" truss, made after designs and suggestions of my own, will be found to fulfil the indications very satisfactorily.

As is well known the application of trusses in the adult is merely palliative, though occasionally, when worn at once in sudden hernia from injury, a cure is effected. With children of reasonable age it is different, they generally effecting a cure by obliteration, adhesion, and by giving support to the structures, during the period of development. Hernia in children under one year or before they can crawl and walk, in my judgment, are best without trusses. I am satisfied more harm is done from the irritation of trusses than any benefit, and could quote many cases from my note book in support of this opinion. In these cases the protrusion can be restrained if not retained by a loose skein of worsted or flannel bandage and even if not retained no great harm is done.

Fat men with large abdomens are the most difficult to fit either comfortably or securely, neither are they good cases for operation on general principles. A truss which would also combine in itself the properties of an abdominal supporter would meet a decided want.

Among the injurious consequences of body-fitting trusses may be mentioned: Atrophy from too great pressure, spreading open the rings from too great convexity of pad, pain and chafing, atrophy, neuralgia of testicle, etc., from pressure on cord and liability to sudden descent and strangulation, through a false sense of security.

Inasmuch as it is the present custom among many to leave this important though apparently simple duty to the trade, the best precaution is to designate a thoroughly reputable concern to the patient, and after being fitted have him return for examination as it is common for many alterations to be necessary, and they are most evident to the medical man.

* *A REPLY TO SOME OF THE ARGUMENTS THAT
HAVE BEEN ADVANCED TO OVERTHROW
THE COMMA BACILLUS OF
ASIATIC CHOLERA.*

BY GEORGE W. LEWIS, JR., A. M., M. D.

On the 25th of July, 1884, Dr. Robert Koch addressed the Imperial German Board of Health, at Berlin, on the subject of cholera and its bacillus. He there expressed his belief that the comma bacillus bears the relation to the cholera process of cause and effect; that the organism gains entrance by the mouth, and depends, for a safe passage through the stomach, upon some disordered condition of that organ or its function; that the real seat of the disease is the lower part of the ileum, including Peyer's glands; and that, up to that time, inoculation experiments had given only negative results.

He pointed out, moreover, a striking relationship between the course of the disease and the life-history of the organism, both as regards the remarkably short time required for it to reach a full development and the equally rapid decline which immediately sets in. His statements were the more valuable because they were based upon some three hundred autopsies, performed in the height of cholera epidemics in France, Egypt and India, and because, not satisfied even with this, he had visited the long stretch of country known as the Delta of the Ganges, where the disease prevails, to a greater or less extent, throughout the entire year.

From the date of that memorable meeting to the present time, the comma bacillus has been a favored target at the hands alike of the skilled and unskilled in this branch of medical research. To attempt an answer to some of the so-called arguments that have been advanced to overthrow the comma bacillus and its relation to the cholera process would be a mere waste of time, for the promulgators of these theories show, by their methods of reasoning, their utter ignorance of even the

* Read before the American Association of Microscopists, at Chautauqua, August, 1886.

principles upon which the science of bacteriology is based. Such, for example, are those who claim a spontaneous origin for the disease, and likewise those who assert, apparently without any foundation, that the comma bacillus is only a transition stage in the development of the organism which really causes the pathogenic changes. This idea, I believe, grew out of the fact that inoculation experiments were not altogether positive in their results, and, although it is generally conceded that the comma bacillus is, in some way, inseparably associated with the disease, those who dissent from the idea of its being the *causa causans* prefer to class the comma bacillus itself as the harmless stage in the life-history of the organism, which, at an earlier or later stage, constitutes the *materies morbi*. So far as I know, there is no instance on record of the transformation of one kind of bacteria into another, and in so brief an existence as that of the comma bacillus, where the stages of its life-history must necessarily follow each other in rapid succession there could not be one pathogenic stage while all the rest are harmless. It is true that some bacteria, for example anthrax bacilli, lose their pathogenic properties when subjected to the influence of certain re-agents, but a change of form has never been noticed. The above, however, is an illustration diametrically opposed in character to the one of which we are speaking. Here we would have a harmless intestinal bacterium take on, instead of throw off its pathogenic characteristics. Another point not to be overlooked in this connection is that the proportion of comma bacilli to other intestinal bacteria has, in some cases, been rated as high as ten to one, which would imply that during its brief stage of harmlessness its power to multiply is increased ten fold. This, of course, is contrary to any known law.

Another theory is, that the comma bacillus is the scavenger rather than the cause of the disease; that is, conditions are created by the disease through which, among the many bacteria that are to be found in the intestine, one kind or another is changed, and assumes the qualities observed in the comma bacillus. The explanation given in the above case is equally applica-

ble here. Our knowledge of bacteria shows us that, so far as form is concerned, they are all remarkably constant. If they were not, successive cultivations outside of the body would cause them, sooner or later, to revert to their original form. The comma bacillus has been carried as high as the twentieth cultivation in various nutrient media, and yet no alteration, either in form or manner of growth, has been observed. If it were only a transitional stage of some bacterium, that fact would certainly be revealed during successive cultivations. Likewise, if it is the scavenger of the cholera process, then, as soon as it is separated from those peculiar surroundings, the germs would cease to flourish. But no, it is constant throughout.

It is Klein, I believe, who expresses the view that the cholera process favors the growth of comma bacilli by preparing a nutritive soil for them, and, on this hypothesis, he endeavors to explain the striking increase of this particular kind of bacteria. If this is so, then we must start with the understanding that the comma bacillus exists in the perfectly healthy body; but the most searching investigations have failed to reveal the slightest trace of an organism that in any way resembles it, either in form or manner of growth. Moreover, in cases which eventually terminated in recovery, there was manifestly a decrease in the number of comma bacilli corresponding to the stage of convalescence.

Of course, if it were possible to induce the choleraic condition in animals by the inoculation of comma bacilli, there would be no room for controversy as to the causative power of this organism. Even if, by feeding appreciable quantities of this form of bacteria, any derangement of the digestive process was brought about, it would at least give encouragement as to its causative properties. So far from having either of these effects, its action is not perceptible. This seems a strong barrier, and, were it possible to bring to account the case of a single animal fallen ill with the disease during any of the epidemics, it would certainly be an insurmountable obstacle to the consideration of the causative relation of this organism. But, from all the quar-

ters that have been visited by epidemics, come unanimous reports as to the exemption of animals from a condition in any way resembling cholera. This carries with it a good deal of weight which alleviates, in a degree, the disappointment resulting from the failure of inoculation experiments. It was evident, from careful examination of the intestines, that the comma bacilli had been killed during their passage through the stomach; in fact, few were found in the intestinal canal, being confined, for the most part, to the walls of the stomach. It is probably true, too, that if the digestive tract of man is free from derangement, he will likewise be able to resist the disease. When Klein, of England, swallowed a considerable quantity of a pure culture of comma bacilli, and thought by so doing that he would prove or disprove the claims made for this organism, he really proved nothing positive, for this reason: Pre-disposition has always played a most important part in cholera infection. Statistics show that by far the largest proportion of cases occur on Mondays and Tuesdays; that is, on days which have been preceded by excesses in eating and drinking.

While under Koch's tuition, at Berlin, in the winter of 1884, the writer busied himself particularly in the line of inoculation experiments, being quite as skeptical as any one could be in regard to the claims made for the comma bacillus. The animals used for this purpose were white mice, guinea pigs and rabbits. No effect whatever was produced by feeding a pure culture, but when the bacilli were introduced directly into the duodenum, the guinea pigs and rabbits, some six hours later, manifested most of the symptoms of cholera infection. The mice, however, exhibited no trustworthy symptoms, dying apparently from indisposition. Upon examination of the intestine, after death, large numbers of comma bacilli were found in the region of Peyer's glands, the glands themselves being enlarged and inflamed. These appearances were very distinct in the guinea pigs and rabbits, but scarcely perceptible in the mice. From a physiological standpoint, there is no apparent reason why the mice should be effected differently from the guinea pigs and rabbits,

and yet, throughout Germany, experiments upon mice have been unsatisfactory. The small size of the animal, and the consequent care that must be taken in reaching a desirable point of inoculation will explain in part, I think, the failure in a large number of cases. This is evident because a great many of the mice die from peritonitis rather than from any direct effect exerted by the bacilli.

If we assume that a disease is caused by a specific germ, we cannot think of an autochthonous origin emanating from any particular locality. Such a specific organism must follow the laws of vegetation just as the most highly developed plant. It must always propagate itself from something of the same nature, and cannot spring up at hap-hazard from other things, or from nothing. In the case of the comma bacillus, whose home has been quite closely defined, we are forced to trace back the disease that depends upon it to special localities from which this specific micro-organism is brought to us.

NOTES ON DISEASES OF THE SKIN.

By A. R. DAVIDSON, M. D.,

Prof. Medical Chemistry and Dermatology, Niagara University.

COCAINE IN HERPES ZOSTER.—Weissenberg, in the *Allg. Med. Cent. Zeitung*, recommends the application of a five per cent. solution of cocaine, every two hours, over the seat of the eruption. He reports one case in which extremely satisfactory results followed. The burning pain was immediately relieved, and at the end of twelve days no trace of the eruption remained. The cocaine, in addition to its anæsthetic properties, was thought to have hastened cicatrization. I have not had an opportunity of trying this. By far the best local treatment, in my experience, is the application of fluid extract of belladonna all over the eruptions. Several applications should be made in succession, each coat being allowed to dry before another is made. Over these a thick coat of collodion should be applied. As Piffard says, apparent abortion of the eruption will sometimes take place under these applications.

HYPERIDROSIS.—The German army surgeons, instead of the salicylic powder, formerly employed, now recommend salicylic suet, as a remedy for sore feet, etc., due to excessive sweating. It is composed of one to two parts of pure salicylic acid to ten parts of best mutton suet.

ICHTHYOL IN SKIN DISEASE.—This substance has been highly praised as a remedy of importance, and has been used, to some extent, in Germany and England. The writer in 1883 found Sangster at the Charing Cross Hospital, London, using it frequently—with moderately successful results. Stelwagon, of Philadelphia, has been experimenting with it, and, in a paper read at the recent meeting of the American Dermatological Association, made the following comments upon it. In a small proportion of cases of rosacea and acne vulgaris a ten to twenty per cent. preparation was found beneficial; in eczema it was valueless and irritating; in furunculus it acted with good results in three cases, when applied as a twenty per cent. plaster; in the fourth case it had no effect. It was of service in psoriasis, and also in a case of lupus erythematosus; in favus it was used without effect.

Unna, whose opinion always carries great weight, considers the action of ichthyol as similar to that of pyrogallol, chrysarobin, etc.; that is, they are reducing agents, drawing oxygen from the tissues. He considers it of great use in *rosacea*, of which disease he recognizes two forms, one approaching to a usual erythema and eczema, with bright red color, smooth or easily scaly skin, without comedones or acne; the other consisting of a papular acne upon blueish, red swollen base. In the first form a low strength of ichthyol is used; in the second the drug is used liberally, both externally and internally. Under its use, in either form, a rapid paling of the surface takes place, a thinning of the epidermis and disappearance of the lesions. In *acne*, whether pustular, papular or indurated, it is very useful and should be employed in full doses, both outwardly and inwardly. Lichen urticatus is very promptly cured by the internal use of the drug. *Urticaria*,

erythema multiforme et nodosum, herpes, labialis et progenetalis, zoster and the *parasitic diseases*, he reports, as very favorably influenced by the application of from ten to fifty per cent. ointment, and that most cases of chronic, obstinate relapsing skin diseases are benefited by the internal administration of the drug. He employs ichthyol ammonia sulphate, adult dose, five to ten drops, three times a day.

Ichthyol is obtained by the dry distillation of a bituminous shale, found in the Tyrol, which contains paleozoic fossil fish. It is from this fact that the so-called oil takes its name (Greek, *ichthus*, a fish). Analysis shows it to contain carbon, hydrogen, nitrogen, oxygen, and from two to five per cent. sulphur, and a trace of phosphorous. Its reaction is slightly alkaline. It is completely soluble in a mixture of ether and alcohol and forms an emulsion with water.

TINEA TONSURANS.—Van Harlingen, (*Medical Times*, Aug. 20th), gives the following new formulæ out of the multitude which are constantly appearing in the journals :

R	Potassii iodidi,	-	-	-	3ss.	
	Liq. Potassæ,	-	-	-	3i.	M.

The hair is to be closely clipped and this sopped onto the scalp, with a pledget of lint, once daily ; when dry the following solution should be applied at the same points :

R	Hydrargyr ; bichlor,	-	-	-	gr. iii.	
	Aquæ,	-	-	-	3i.	M.

The theory is that the liquor potassa dissolves the fatty matter on the surface, and permits the penetration of the iodide of potassium into the follicles. Here it is reached by the corrosive chloride, and iodide of mercury is formed just where it is wanted as a parasiticide. We fear, however, that this ingenious compound application will fail in practice.

A somewhat similar preparation is the following :

R	Hydrargyr. chlor., mit.,	-	-	-	3i.	
	Tinct. iodinii,	-	-	-	3i.	M.

Let it stand a few days, shaking frequently ; paint on with a brush. " One or two applications, it is said, will suffice."

The following is an old friend in a new combination :

Rx	Thymol,	-	-	-	-	℥i.	
	Chloroform,	-	-	-	-	℥ss.	
	Ol. olivæ ad.,	-	-	-	-	℥ii.	M.

Apply with a camel's hair brush, after cleansing the part well.

Very satisfactory results can usually be attained by the use of turpentine and tincture of iodine.

The hair being closely cut over the affected part, oil of turpentine is rubbed into the patch, with the fingers, for several minutes. This is to be followed by an application with a camel's hair brush, of tincture of iodine.

The following is said to be a cleanly and efficient remedy in ring-worm of the thigh (eczema marginatum) :

Rx	Acid salicylici,	-	-	-	-	gr. L.	
	Ichthyolic,	-	-	-	-	℥ss.	
	Spirit vini. rect.,	-	-	-	-	℥i.	M.

Rub in with a stiff brush twice daily, and afterwards dust with starch.

That the Tricophyton will not always succumb to the treatment suggested is sufficiently well known to most of us, and, apropos of this, Dr. Brocq, of Paris, in a communication to the *Journal of Cutaneous and Venereal Diseases*, says : " A fact which has struck me since I have been keeping up with the work done by Americans and English, is the facility with which you radically cure parasitic affections of the scalp, favus and tinea tonsurans, by the use of parasitocides alone, without having recourse to epilation, while in France we obtain, by your method only apparent and transitory cures. If we do not employ epilation we always have relapses."

The American tinea are not more susceptible than the French, but we do not see as many severe cases. In mild cases, in which the fungus has not penetrated deeply into the hair follicles, almost any antiparasitic application will succeed, but if

the trichophyton has effected a lodgment in the hair follicle and passed into the hair shaft, a cure cannot be effected without epilation, all loose hairs and all broken ones should be removed, not only do we thus remove an immense amount of fungus with the extracted hair shaft, but are the better enabled to apply the parasiticide to the seat of the fungus, and the application should follow each epilation.

THE LEPROSY BACILLUS. — Dr. Lindsay Stevens, (*British Medical Journal*), has carefully examined a portion of affected skin, excised during life, Gram's method being employed. Bacilli were present in enormous numbers, and were situated in roundish masses of granulation tissue, as well as in more diffuse infiltration of round cells, but scarcely, if at all, in the more normal portions of the sections. None were met with in the epidermis. The bacilli were contained within swollen lymphoid cells, and were also free, these general arrangements being often suggestive of their being contained within the lymphatic spaces. No bacilli were found in the blood vessels. When examined by very high powers, (1,600 diameters) they were seen to be fine rods, often sharply pointed at each extremity, and almost all of them contained small rounded spores, from three to five in number, giving a beaded appearance.

A MODERN SAINT AND MARTYR. — Upon the island of Molonai are confined all the lepers from the neighboring Sandwich group. For many years, shut away from all civilized and healthy humanity, Father Damen has been a willing prisoner, ministering to the spiritual and physical wants of these poor unfortunates. For a long time he remained in good health, but at last he has succumbed, and is now to be numbered among the living dead, buried forever in that awful sepulchre, the Leper's Island. In a letter, written recently, he says: "Impossible for me to go any longer to Honolulu, on account of the leprosy breaking out on me. The microbes have finally settled themselves in my left leg and my ear, and one eyebrow begins to fall. I expect to have

my face soon disfigured. Having no doubt, myself, of the true character of the disease, I feel calm, resigned and happier among my people. Almighty God knows what is best for my sanctification, and with that conviction I say daily, *Fiat voluntas tua.*" Where is the heroism which will vie with this?

TREATMENT OF PSORIASIS—Dr. Guibout (*Gazette des Hospitaux*) prefers oil of cade, well rubbed in, and alkaline baths every day or so. This treatment to be continued until the pigmentation, due to the disease, has disappeared.

If, for any reason, he cannot use the oil cade, he employs a 5 to 15 per cent. pyrogallic acid ointment, having it applied twice a day, and directing the patient to take a daily bath.

The eruption of psoriasis may be removed in many cases by the above treatment, which is not new. Oil cade and oil turpentine, equal parts of each, acts more quickly. Medicated collodion applications are altogether preferable to ointments. The following formula is commended:

Chrysophanic acid,	-	-	gr. xxx.
Salicylic acid,	-	-	gr. xx.
Collodion,	-	-	℥i.

Pyrogallic acid (one-half the strength) may be used in the above formula instead of the chrysophanic, but, in my experience, the action of the latter is more prompt and pronounced.

External treatment should always be supplemented with internal medication.

Clinical Reports.

TWO CASES OF INTUBATION OF THE LARYNX FOR DIPHTHERIC CROUP.

By HENRY D. INGRAHAM, M. D.

Professor of Diseases of Women and Children, Medical Department Niagara University.
Physician to Buffalo German Roman Catholic Orphan Asylum.

Sunday morning, Sept. 21st, I was called in consultation by Dr. Banta, to see Gracie O'N——, five years and eight months

old. Patient had been suffering from diphtheric croup for several days. The night previous it was thought that she would not live until morning. When we entered the room the little sufferer seemed to be already in death's grasp. Her respirations were 60 a minute, eyes listless, pupils dilated, face livid, extremities cold. It was a fearful struggle for life and it was evident that it could not last long. With the assistance of Dr. Banta and medical students, Banta and Buswell, I succeeded after some little difficulty in introducing one of Dr. O'Dwyer's tubes into the larynx. It gave immediate relief, acted like magic. In a practice of twenty years, I have never seen such prompt and complete relief afforded a patient as the tube gave this little sufferer.

In two minutes the respirations sank to twenty-four a minute, the eyes assumed their natural expression, and the face lost its livid hue. The patient said of her own accord that she felt a great deal better. She complained of the silk thread attached to the tube and asked to have it removed, which was done. After being put into bed she slept quietly most of the time while I remained, about an hour. Her mother said before I left that if she were to die then, the relief had been so great she was glad the tube had been inserted.

Sunday 7 P. M.—Patient comfortable and quiet. Had slept considerable of the time since the insertion of the tube.

Monday Sept. 20th, 10 A. M.—Patient comparatively comfortable, respirations 24 a minute; pulse 115; temperature in axilla, $100\frac{1}{2}$. Was given hydrag. chlo. $\frac{m}{it}$., gr. ss. every two hours. She has taken ice freely, also a little beef-steak and corn starch. No liquids are allowed, at least she is ordered not to have any.

Sept. 21st, 10 A. M.—Patient restless through the night, respirations nearly normal in frequency; pulse 120; temperature 101. Broncho-vesicular murmur over both lungs. Has more anxious expression of countenance than yesterday and recovery seems doubtful. Is given :

R	Tinct. Nux. Vomicae,	-	-	gtt. xvj.
	Ammonii Carb.,	-	-	gr. xvj.
	Potass. Acetatis,	-	-	3j.
	Syr. Ipecac.,	-	-	3ij.
	Syr. Glycyrrhizae,	-	-	q. s. ad 3ij.

M. Sig. A teaspoonful every hour.

Strict orders given the mother to give it in two doses, that is give one half of a teaspoonful immediately following the other. Medicine to be given with child lying on her side and no other liquids allowed.

6 P. M.—Patient much better in every respect.

Sept. 22d, 9 A. M.—Three days after the introduction of the tube, patient doing well and indications favorable for her recovery.

CASE II.—Tuesday morning, Sept. 21st:—Called by Dr. Banta to see Eddie B— nearly four years old. Child has been suffering from diphtheric croup three days, but has been treated by his parents, Dr. Banta not being called until the evening before. Although this child had been sick for a shorter time than Case I. yet the severity of its symptoms are fully as great. I introduced a tube into the larynx but it was soon coughed up. Dr. Banta introduced it again and it was retained for three hours when it was again coughed up. Although the relief in this case was great, yet it was not as marked as in the first case. The parents of the child could see improvement enough, so that they were very anxious to have the tube introduced again after it was coughed up the second time. It was nearly two hours before Dr. Banta and I reached the patient and introduced the tube the third time. About 11 P. M., I was again called to introduce the tube the child having coughed it up a short time before. Dr. Banta being out, my student Mr. Buswell and I introduced it for the fourth time.

At this writing 9 A. M., of the 22d, the tube is retained and the child is doing well. The reason the tube has been coughed up so often in this case is that it is too small. The child needs the same sized tube that Case I. has, and we have only one of that size.

The treatment in the two cases is nearly the same. Dr. W. D. Green and medical student Banta were present when the tube was first introduced in this case. It is too soon to tell what the result will be in these two cases, but all who have seen them believe that by intubation of the larynx a greater degree of relief is more speedily afforded than by any other means, and that the operation is clearly indicated in this class of cases, even if it does nothing more than relieve the terrible suffering of the patient.

So far as I know the greatest objection to intubation is the difficulty in introducing the tube.

I believe these two cases are the first in this city. The result will be given in the next issue of the JOURNAL.

405 Franklin Street.

Translations.

A NEW TÆNIAFUGE.

BY NUMA CAMPI.

Translated from *Il Raccoltore Medico*, by F. R. CAMBELL, M. D.

The varieties of tænia described by authors are very numerous. We have only to open a book on zoology or parasitology to find a host of them described, with excellent illustrations. It is not my purpose to give a history of all the varieties of tape-worm, but I will content myself with the discussion of a single variety, the *tænia medianellata*, the one found in the modest field of my observations, and upon which alone I have tested the powers of a new remedy which has never before, to my knowledge, been employed as a tæniafuge.

This parasite, which so frequently affects mankind, producing the gravest disturbances, and even causing death, has been known from the remotest antiquity. We learn that Theophrastus and Dioscorides employed male fern to destroy it, that Vallisneri has seen Israelites and Egyptians affected with tape worm, and that other distinguished observers have found it at Cairo, in Abyssinia, in South Africa, Egypt, Syria, and the New World.

The experiments of Perroncito and the observations of many physicians have shown that uncooked beef and mutton are the source of this *tenia medio-canellata* in man. Dr. Knok relates that the English engaged in the Caffre War, in 1819, subsisted largely on raw beef and that the soldiers of this expedition were affected with *tænia* to an alarming extent. The Russian physician, Kaschin, states that the Cossacks in some regions are affected with tape-worm almost to a man, because they do not properly cook the beef they consume. He states that among 500 persons received into the hospitals, not one was free from tape-worm. In Europe there is no region free from this parasite. In Italy it has become much more common since the use of raw or uncooked beef has become general.

The *tenia medio-canellata* or *tenia inermis* of man is larger, stronger, and more opaque than the *tenia solium*. It is the most difficult to expel of all the cestodes. The head is very large, and on it are located four large sucking discs without hooklets or rostellum. The neck is quite short. The length of the body is ordinarily four or five metres; its segments or proglottides are thicker and longer than those of the *tenia solium*. The ova, as they come from the mature proglottides, are taken into the system of some animals and are developed into cysticerci. When these cysticerci are swallowed by man new tape-worms are produced. A peculiarity worthy of note is its extraordinary fecundity. It is generally admitted that from seventy to a hundred mature segments are found in this tape-worm at one time, each of these segments being filled with ova. According to the calculations of an English physician, a person harboring a tape-worm eliminates about 400 segments a month and consequently becomes the means of diffusing 100,000,000 of eggs a year. It is thus easy to understand that although the greatest majority of the ova perish, some will attain a complete development and thus secure to the species an extensive propagation. These eggs are scattered with the manure in the pastures, in the fodder, and in the drinking water of the animals, where they are swallowed by the cattle and develop into beef cysticerci, or *cysticercus tennicollis* in contradistinction to the *cysticercus cellulosæ* of the *tenia solium*. Like the pork cysticercus, the beef cysticercus is found dispersed through all parts of the body, but observation has shown that it is found most frequently in the muscles and in the heart, rarely in the liver, kidneys, lungs, etc.

Having given this general description of *tenia medio-canellata*, I will relate the clinical history of a patient affected with this worm, under my care last year in the Medical Clinic of Florence, on whom Dr. Vanni, assistant at the clinic, desired to try *thymic acid* as a remedy.

The medicines which have been used as anthelmintics are almost without number, many of them being warranted as infallible cures. The most ancient is the *rhizome* of the *filix mas*, of which Pliny, Galen and Theophrastus have spoken in their books, and which is generally looked upon as the chief of anthelmintics although it often excites vomiting and other disturbances. It generally succeeds in expelling the *bothriocephalus latus* and *tenia solium*, but often fails with the *tenia medio canellata*.

I do not propose to discuss the properties, advantages and defects of each remedy in detail, as that would carry me too far from my subject. Moreover, I do not consider it necessary in demonstrating the value of a new remedy to point out the real or supposed defects of the old, thus performing a thankless work of destruction. Such a course often carries us far away from the truth. Among the anthelmintics employed with more or less success we have besides *filix mas*, the *bark of the pomegranate*, the *flowers of koosso*, *kamala*, introduced into Italy in 1864 by Cantani, *turpentine*, *pumpkin seeds*, *sulphuric ether*, *ocymum basilicum*, *chloride of sodium*, and many others, without mentioning some which have at present fallen into disuse, such as the *powdered tin* and *tincture of nuxvomica*, without mentioning the special remedies in vogue wherever tape-worm is found, and without including the various empirical remedies often containing the most dangerous substances such as arsenic and the other mineral poisons which are liable to cause death. Finally we will call attention to Constatt's classification of anthelmintics into mechanical and dynamic remedies. This division is not accurate, as some of the remedies act in both manners. Constatt favors us with the description of no less than fifty anthelmintics. But, fortunately, science and practice have in their glorious work of elimination, taught us to discard the dangerous remedies and to use with distrust many others.

With regard to *thymic acid* or *thymol*, we know that it is derived from one of the *labiatae*, thyme (*thymus serpyllus, vulgaris* and *piperella*), which is common throughout France and Southern Italy. The

plant contains a volatile substance, a liquid essence, called *thymine*, which is isomeric with turpentine also a tæniacide. It is doubtless to this volatile substance that *thymol* owes its anthelmintic properties, although the tannin and a bitter principle are of importance. Thymic acid or thymol, when perfectly pure, resemble camphor, but is much more transparent and has a glassy appearance.

It is very slightly soluble in water but can be readily dissolved in alcohol, in ether, and in alkaline solutions. It has an acrid, warm, somewhat persistent bitter taste and the odor of thyme.

We know but little of its biological effects. Lewin, a few years ago, claimed that it had valuable germicidal and antiseptic properties, and was four times more powerful for those purposes, than carbolic acid. Bucholtz has recently made a comparative study of its germicidal properties and finds that a solution of 1 part to 2,000 will prevent the growth of bacteria, being surpassed only by bichloride of mercury, while benzoin, carbolic, salicylic and boric acids, creosote, the sulphates of quinine, copper and zinc and alcohol are all inferior in their antiseptic powers. The action of thymol, moreover, is not limited to micro-organisms, but affects the higher animals and man. Lewin discovered that frogs placed in weak solutions of thymol became insensible and lost the power of reflex action from mechanical and chemical excitation, while the electrical irritability of the muscles and nerves remained intact. Leucocytes are rapidly attacked by thymol and lose their motility. From the description of the properties of thymol it is not difficult to conceive that it may be usefully employed in the treatment of tape-worm, especially since the experiments of Federici have shown that it is very effective for the destruction of the *anchylostoma duoænalis*, the parasite which produces the terrible infirmity called *Gottardo's disease*, or *miners' anemia*. But in order to succeed with a remedy, it is not enough to know its physiological action, we must also know how to administer it. Posology is undoubtedly the most important and the most delicate part of the practice of medicine. This simple truth, so generally recognized by medical writers, must be particularly regarded in the use of anthelmintics, the effectiveness of which depends so largely on the mode of administration.

Dr. Vanni, in the first case of tænia treated by thymol gave three grammes (gr. xlv.) in divided doses through the day, and twenty

grammes (3 v.) of castor oil at night, but succeeded in obtaining only five or six segments of the worm. On the following day, however, he administered six grammes, (3 iss.) of thymol, divided into twelve doses to be taken every fifteen minutes, and at the end of the third hour the entire worm including the head, was expelled.

I adopted the following method with my first case: In the evening I ordered twenty grammes (3 v.) of castor oil to be taken fasting; in the morning I prescribed eight grammes, (3 ii.) of thymol divided into twelve doses, one to be taken every quarter of an hour; twenty minutes after the last dose had been swallowed, another twenty grammes (3 v.) of castor oil were taken. A few minutes after, a *tænia medio-canellata* three and a half meters in length was evacuated, the head being dead. To be sure, I had no Shultze's table with me to prove that there was no movement, but I touched the worm repeatedly with a hot coal, and observed no sign of life.

It is very important during the administration of the thymic acid, to give the patient some cordial and stimulant, cognac, rum and alker-mes will be found suitable. Thymol is very depressing according to the experiments of Husemann, and this will explain its action on the nervous system. Even with small doses the pulse becomes small and frequent, the respiratory movements slow, and the temperature is lowered. These effects, however, are easily and promptly counteracted by the use of stimulants.

I must call attention to another fact. Husemann and Lewin say that thymol should be administered in small doses. On account of its caustic action, they claim that there is danger of producing digestive disturbances and gastro-enteritis. They recommended two or three teaspoonfuls of a one-half per cent. solution during the day. While it is true that we can never be too prudent in the practice of medicine, these doses are too fearfully homœopathic, when we consider that eight grammes of thymic acid may be given in two hours and a half without producing the least gastro-intestinal disturbance.

I may be criticised for offering this new anthelmintic to the profession on the ground that there is no occasion for new remedies of this class. In reply, I would state that no specific *tæniacuge* has yet been discovered. The number of remedies recommended prove that none are reliable. The *tæniacuges* have left the physician and gone to the druggist who sells his infallible vermifuges as he does his hair restorers. We have

only to ask any old practitioner about the use of anthelmintics to learn that this class of remedies is exceedingly unreliable. Most of these remedies, moreover, produce grave gastro-intestinal disturbances and we are not surprised that Bamberger questioned which had done mankind most harm, the tape-worms or the *tæniafuges*. But the time spent in clinical researches is not wasted even if we arrive at negative results, and although my observations are as yet limited, I would respectfully recommend to the profession the use of thymic acid as a *tæniafuge* :

1. Because this remedy, with the exception of a depressing effect, easily counteracted, produces no disturbance of the stomach or intestines.

2. On account of the rapidity and simplicity of its action compared with other remedies, which require *courses of treatment*, divided into three periods, the preparatory, the expulsive, and the consecutive.

3. On account of the advantages it offers of being both a *tæniacide*, and a *tæniafuge*.

4. Because in case of an error of diagnosis the remedy would produce an efficient purgation and disinfection of the alimentary canal.

5. Because it is reasonable to suppose that since thymic acid succeeds in expelling the *tænia medio-canellata*, the worm which above all others resists the action of anthelmintics the same remedy will be of service in expelling all other varieties of flat worms.

6. Because we have, as yet, always been successful with the use of thymic acid and have probably found a real specific, which up to the present did not exist.

Medical News.

HEMATOSCOPY.—Henrocque, of Paris, in a communication addressed to the French Academy of Sciences, gives the results obtained by his method of Hematoscopy. This is based upon the employment of the spectroscope for the analysis of blood, and comprises two series of examinations. First, the quantity of oxyhemoglobine is obtained by a spectroscopic examination of a few drops of blood drawn from the finger: second, the blood is examined by the spectroscope through the thumb nail: a ligature is applied and the time required for the

reduction of the oxyhemoglobine is thus determined. Having obtained these two factors, viz.: the quantity of oxyhemoglobine, and the time required for its reduction in the tissues, he finds that the normal time required for the reduction of blood containing fourteen per cent. of oxyhemoglobine is seventy seconds. From these data the value of a unit of reduction is determined, which is fixed as the tissue activity required to reduce a solution of two per cent. of oxyhemoglobine in one second. Henroque has made observations on 175 individuals, and finds that the activity of reduction varies in different constitutions and diseases independent of the quantity of oxyhemoglobine in the blood. Various medicines also retard or increase the activity of reduction. This method, which shows directly the rapidity of the consumption of oxygen in the tissues, opens up a new field for the study of nutrition, and particularly the changes going on between the tissues and the blood.—*Progres Med.*

SEREBIZKI, in a paper recently read before the Russian Medical Congress, exhibited statistics showing that nearly one per cent. of all the men examined for the Russian armies are blind in one or both eyes. That is, of 1,388,761 men examined, 13,688 were blind. In addition to those found blind, 6,287 were affected with staphyloma, exophthalmos, symblepharon or leucoma; and 9,059 were rejected on account of asthenopia. In France, the statistics show that about one person in a thousand is blind. Blindness is therefore ten times more frequent in Russia than in France. Engineer Melville, who spent a winter in Siberia with the survivors of the "Jeannette," observed that there was scarcely a cabin in all Northern Siberia that did not contain one or more blind pensioners. He states that the majority of the inhabitants are syphilitic and that they infect their eyes by their peculiar method of ablution. Filling the mouth with water, they blow it upon their hands and then apply it to their faces. In this way Melville explains the infection of the eyes, an explanation, however, that will scarcely satisfy medical men. The true cause of many of these cases of blindness is syphilitic iritis, a disease which seldom receives any treatment among the Russian peasantry. Cataract is also very frequent in the northern provinces, and is supposed to be due to snow blindness.

THE METRIC SYSTEM.—Prof. Oscar Oldberg, who has been noted as the most vigorous champion of the metric system of weights and measures, and to whose efforts the adoption of the system in the U. S. Pharmacopœia of 1880 was in a great part due, has recently published an article recanting what he has previously said in regard to this system and expatiating upon the superiority of the system now in vogue in America; the latter being quite as simple, universally understood, and much less liable to lead to mistakes in filling prescriptions. The latter point is the chief argument against the adoption of the metric system, the simple displacement of a dot being sufficient to cause a death when dangerous remedies are prescribed. The present system is one almost universally satisfactory, and Prof. Oldberg manifests his good judgment in abandoning his former position and coming forth as the exponent of the present system of prescription writing.—*Kansas City Medical Index*.

CHLORAL HYDRATE LOCALLY.—The local application of chloral hydrate is very servicable in many diseases, both on account of the relief of pain afforded and the cleansing of the parts. For cancerous ulceration of glands and of the uterus, phagadenic ulcerations, eczema, impetigo, ulcerated legs, herpes zoster, pleurodynia and neuralgia, local employment of chloral, half an ounce in a pint of water, with a little glycerine, has been productive of much benefit. Ulcerated surfaces become healty by comparsion, discharges less offensive and pain is reduced to a minimum. These results are probably due to a direct action on the peripheral nerve terminations.—*Med. World*.

FOR ECZEMA OF THE SCALP.—

R	Acidi salicylici.	-	-	-	-	gr. viii.	
	Spts. Mindereri,	-	-	-	-	gr. xxv.	
	Glycerini,	-	-	-	-	℥xii.	M.

FOR SCABIES.

R	Napthol,	-	-	-	-		
	Chalk,	-	-	-	-		
	Sulphur Precip. aa,	-	-	-	-	gr. x	
	Lard,					℥ xii.	M.

—*Journal Cutan. and Vener. Diseases*.

MARCHI, of Florence, has studied the degenerations following total or partial extirpation of the cerebellum. Total extirpation produces a diffuse sclerosis of the gray substance surrounding the pyramidal bodies,* atrophy of the transverse fibres of the middle peduncle of the pons varolii, sclerosis of the gray substance of the olivary bodies, and degeneration of the cerebellar peduncles. Extirpation of half the cerebellum produces a sclerosis of the fibres of the opposite half of the pons and medulla oblongata: extirpation of the middle lobe of the cerebellum produces a bilateral degeneration, confined to certain fibres.

MEDICAL JOURNALISM IN TEXAS.—“Our worthy President, Dr. E. P. Baxter, emphatically *saw* the theological *ante* of Brother Brown and ‘*went him considerably better.*’ Indeed, Dr. Brown *went it blind*, as to the sentiments of the members, and Dr. Baxter certainly *straddled the blind* when he said: — — — — ‘This declaration of the president of the Texas Medical Association amounts to an emphatic *call*, and hence this article, a *showing of hands*, as it were.’—*Daniels’ Texas Medical Journal*. While Dr. Daniels’ theology and medical philosophy are excellent, we fear he did not acquire his peculiar literary style in the pulpit.

IODIDE OF SODIUM VERSUS IODIDE OF POTASSIUM.—A recent leading article in the *British Medical Journal* thus sums up the advantages of iodide of sodium over iodide of potassium: “(1) It can be used therapeutically for almost all, certainly the chief, purposes for which potassium iodide is used, and with similar beneficial results. (2) Sodium iodide is more assimilable than the iodide of potassium, both locally to the digestive organs and to the general system. (3) That as a result many of the local and general undesirable effects which are produced by potassium iodide do not follow the use of sodium iodide.”

AN AGREEABLE ANTISEPTIC TOOTH-POWDER.—

R	Boric acid, pulv.,	-	-	-	-	grs. xl.
	Potass. chlor.,	-	-	-	-	5 ss.
	Pulv. Guaiaci,	-	-	-	-	grs. xx.
	Creæ Prep.,	-	-	-	-	5 i.
	Magnesiæ Carb., pulv.,	-	-	-	-	q. s. ad 3i
	Otto of Roses,	-	-	-	-	gtt. ss. M.

A ZINC OINTMENT FOR VARICOSE ULCERS.—

R	Zinci oxidi,	-	-	-	-	5	iiss.
	Gelatin,	-	-	-	-	5	iiss.
	Glycerini,	-	-	-	-	5	i 1/3.
	Aque,	-	-	-	-	5	iiss.

Add the gelatin to three-fourths of the quantity of water and glycerin: when it is thoroughly dissolved, add the oxide of zinc, previously mixed with the remainder of the glycerin. Apply on a piece of cloth.

FRIEDREICH, of Heidelberg, recommends cauterization of the clitoris for the cure of obstinate cases of hysteria. Nitrate of silver is the caustic employed. He has thus treated eight cases, all of whom were promptly cured after three or four cauterizations repeated at intervals of from three to ten days. Many years ago Kaker and Bronvon recommended ablation of the clitoris in cases of severe hysteria, claiming that the operation was always attended with good results.—*Revisé Med. de Sevilla*.

Dr. AUSTINE BROWN, of Sioux Falls, has employed bromine, with unvarying success in seventy-five cases of ivy poisoning, using the following formula:

R	Bromine,	-	-	-	-	gtt. xxx.
	Ol. olivæ sen,	-	-	-	-	
	Ol. Amygd. dulc aa,	-	-	-	-	5 j. M.

Apply freely, four times daily. Wash with warm water and castile soap twice daily.

BILE IN URINE.—Agitate the suspected urine with a few drops of chloroform in a test tube: if bile be present, the chloroform becomes turbid, acquiring a yellowish hue, the depth of which is proportionate to the amount of bile present. No bile being present the liquid remains limpid. Very minute quantities may be detected. When the cause of jaundice has been removed, salicylic acid is the most potent remedy in eliminating the bile pigment from the blood.

A RUSSIAN surgeon, Bruhns, publishes an article showing the danger of circumcision, as practised by the Jews. He mentions seven cases which resulted unfortunately, and claims that syphilis has been communicated by the careless methods of the Rabbi operator. Bruhns recommends that only physicians be allowed to perform this surgico-religious operation, and as the Jews are a persecuted people in Russia, it is quite probable that the State will interfere.

PHILIPOWICZ recommends puncturing the spleen with a hypodermic needle and drawing from its substance a syringe-ful of blood, for the diagnosis of typhoid fever. The bacteria thus obtained are cultivated in gelatine, and if they are the bacilli of typhoid, they may be recognized by their physiological and morphological without peculiarities. This operation has been performed twenty times any untoward results.

A STRANGE VERDICT.—A verdict of \$5,000 damages was awarded by a jury against a Buffalo physician for malpractice (?) in causing the death of a man who was so much intoxicated that he could not walk and fell from a street car, fracturing his fibula. The doctor gave two-thirds of a grain of morphine hypodermically in two doses. As the man died the jury attributed his death to the morphine.

IN 1883 compulsory vaccination was abolished in Zurich, Switzerland. In 1882, there were no deaths from small-pox; in 1883, in a 1,000 deaths two were from small-pox; in 1884, there was three in a 1,000; in 1885, there were seventeen in a 1,000, and in the first quarter of 1886 there were eighty-five in a 1,000. These facts are eloquent in favor of compulsory vaccination.

DR. W. SKINNER, who formerly resided in Western New York, and is now practicing in Paris, France, publishes in *Le Progres Medical* an article entitled, "*Lymphangite et Sublime*," in which he shows that erysipelatous cellulitis, lymphangitis and erysipelas may be rapidly cured by the application of compresses wet with a 2 to 1,000 solution of bichloride of mercury.

AN ANTISEPTIC GARGLE.—

R	Thymol,	-	-	-	-	grs. iv.
	Acid Benzoic,	-	-	-	-	grs. xlv.
	Tr. Eucalyptus,	-	-	-	-	5 iii.
	Distilled water.	-	-	-	-	Qjss. M.

THE French Academy of Medicine, having been directed by the Government to examine the wines used in France, report in favor of forbidding the sale of all fortified or alcoholized wines. The report also calls for a large reduction of the number of wine shops and for a rigid enforcement of the laws for the suppression of drunkenness.

WE extend our thanks to Dr. Filippi, of Florence, Italy, editor of *Lo Sperimentale*, for two complete volumes of his journal with the initial number of the present volume. *Lo Sperimentale* is now in its fortieth year and is one of the best medical journals published in any language.

DR. BROWN-SEQUARD has been elected a member of the French Academy of Sciences, after being a candidate for many years. He was elected in the section of medicine and surgery. Among his competitors were Germain-See, Bouchard, Jaccoud, Hayem and Richet.

CHARRIN and Roger have studied the antiseptic action of bile and the bile salts. They find that fresh bile has feeble antiseptic properties. The salts of bile have various antiseptic powers, the taurocholates being the most powerful.

COCAINE can now be made artificially. Merck, of Darmstadt, has succeeded in obtaining it from benzoyl-ecgonin, a substance previously discovered by himself.

THERE have now been 103 cases of resection of the pylorus with twenty-nine recoveries. Of these operations Billroth has performed sixteen, with seven recoveries.

ACONITE POISONING.—Dr. Ripley of New York considers the hypodermic injection of morphine the most valuable remedy in the treatment of aconite poisoning.

MULTIPLE TÆNIA.—A Russian physician by the administration of male fern, caused the expulsion of 102 tape-worms from one patient.

CASES of hysterical paralysis and aphonia of long standing were rapidly cured by the recent earthquakes at Charleston.

CINCINNATI is to have a crematory, and will use the same style of furnace employed in the Buffalo crematory.

Two female medical students in Paris, one French and the other American, recently fought a duel with swords.

THE State of Georgia has no dissecting law, and body-snatching is a regular trade.

Selections.

THE OTHER SIDE OF COCAINE—THE BAD SIDE.

So much has been said of the good effect of cocaine, and so little mention been made of any evil results following its use, I wish to call your attention to some of its bad effects, so far as my experience with it has taught me. I speak more particularly of its use in the treatment of eye diseases. In most of the operations upon the external portions of the ball, it gives almost perfect immunity from pain, and there is scarcely any operation upon the eye, in the making of which it does not give some relief from pain. Operations for strabismus, pterygium, foreign bodies in the cornea, chalazion, strictures of the tear-canal, iridectomy and soft cataract, are now almost universally made under its influence, and with most marked success; but in the *extraction* of cataract lies the chief danger, in my opinion. Previous to its use, my average of success in cataract extractions was about 95 to 97 per cent. From the day I began using it to the day of discarding it in extractions, I lost more cases than in all my previous experience with cataract operations. To my mind the best evidence of the bad influence of the cocaine was the fact that immediately upon stopping its use in extractions, my formerly good average of results was achieved and has since been steadily maintained. The cause of failure in every instance was a want of proper union of the corneal

wound, resulting in more or less extensive sloughing of the cornea, or a severe form of iritis, with an outpouring of a large amount of lymph in the pupillary space and anterior chamber. Most frequently both of these results took place in the same case. Of course, this failure of the corneal wound to unite must have been brought about by the contact of the cocaine with the cut surfaces of the cornea. In each case every precaution was taken in regard to preparatory treatment, and also both during and subsequent to the operation. In most instances a four per cent. solution of the muriate cocaine with two per cent. boracic acid was used freely at first, but afterwards very sparingly, but in some instances only a two per cent. solution with the boracic acid was used. A solution of bichloride mercury (1 part to 10,000) was instilled into the conjunctival sac previous, during and after the operation, and all the instruments were dipped into the same fluid just before operating.

Why such results should take place in my hands and not in others I am unable to say. In only one other direction have I found the company which misery loves. The surgeons of the Moorefield's Royal Ophthalmic Hospital, of London, have had a similar experience to my own, and their cases, as reported, present symptoms and results very like mine, viz., non-union of the wound, sloughing, etc.

To the oculist the introduction of cocaine is of the greatest help and assistance, enabling him to discard the use of chloroform almost altogether. I even make enucleations of the ball very nearly exclusively with the aid of cocaine, but it is only that most delicate of eye operations, cataract extraction, in which the danger lies. Our enthusiasm is very apt to keep our gaze fixed upon the bright side of things, and make us forgetful of the fact that there may be a shadowy side. If, by calling attention to what has been, in my hands, the bad side of cocaine, some over-enthusiastic brother can be made to realize the fact that he must be careful in the handling of this most valuable remedy, I will have accomplished my object.—*Atlanta Medical and Surgical Journal*.

SALOL.

In a communication to the Medical Society of Berne, Dr. Sahli mentions the injurious effects upon the stomach, produced by the prolonged use of salicylate of soda. He addressed a note to Prof. Neucki, asking him if there was not some other preparation of sali-

cylic acid, which would be free from this objection. Prof. Neucki, who had for three years been studying the chemical, physiological and antiseptic properties of *salicylate of phenol*, or *salol*, immediately recommended a trial of this drug to Dr. Sahli

Salol contains 38 per cent. of phenol, and appears in the form of a white crystalline powder. It has no distinct odor or taste, it is insoluble in water, but is readily soluble in alcohol. It is best administered in capsules or tablets with sugar of milk or licorice powder.

The experiments of Neucki have demonstrated that salol is decomposed by the pancreatic juice into a free acid and an alcohol, that is, into salicylic acid and phenol. It is eliminated by the kidneys, and it may be recovered in the urine in the form of sulphophenic and salicyluric acids.

With regard to the administration of the new product, Sahli has attained excellent results in cases of articular rheumatism, by giving fifty centigrams (gr. viiss) every twenty-four hours. The dose may, however, be increased to six or eight grams (5iiss-ii) a day, without danger. This remedy does not exhaust the stomach, is almost tasteless, and rarely produces tinnitus, thus affording great advantages over salicylate of soda and salicylic acid. The urine, after the administration of salol becomes dark, resembling that of patients who have taken phenic acid.

Besides its use in articular rheumatism, Dr. Sahli believes that it will be valuable in the treatment of diabetes insipidus, phthisis and as an antipyretic. To consumptives he would recommend beginning with small doses.

Salol has been used with success in the treatment of urticaria, typhoid fever, miliary fever, intestinal catarrh, cholera, intestinal parasites, catarrh of the bladder, ozaena, otorrhœa, neuralgia and migraine.

Salol is also a powerful antiseptic. If it does not destroy microbes, it retards their development. It has been proposed to use it in all cases where sublimes and iodoform are now employed.—*Bull. Gen. de Therapeutique*, Aug. 15.

REMARKS ON THE USES OF PAPIËNE.

Dr. Wm. J. Crittenden, in a communication to the *Virginia Medical Monthly* says: During January, 1886, I was called to see a lady suffering with acute peritonitis. She assured me that she could

not use opium, as she had tired of it previously. But I gave her one-eighth grain of morphia sulphate and one 1-120th grain of atropæa sulphate, hypodermically, and in a few minutes the depressing effects were noted, both upon the respiration and circulation: the pupils also became visibly contracted. I then tried the various usual substitutes for morphia in succession, but to no effect. I determined to try papine; but not being able to give it by the mouth on account of nausea, and as she objected to the use of the hypodermic needle, I gave her two-drachms per rectum, and repeated it in one hour. The result was that she sank into a quiet peaceful sleep, which lasted for several hours. During the remainder of her sickness I gave her papine, with the most gratifying results. As soon as her stomach would retain it, I gave it to her by the mouth in one-drachm doses.

I have also used papine in a case of uterine cancer, in lieu of morphia. In cases which patients have been taking morphia until it has lost its anodyne influence, papine is well adapted.

In pneumonitis, pleuritis and bronchitis I have found papine to answer an excellent purpose. In dysentery it is useful, both as an anodyne and in relieving the tenesmus. In the diarrhoea of children I frequently combine with it bismuth subnitrate and prepared chalk. I have used it also in cystitis. In neuralgia, when I wish an anodyne, I use papine. As an anodyne it is equal, if not superior, to morphia; and I have never yet seen any unpleasant effects from its use. As a hypnotic I find it to be an agent of great value.

It is inferior to bromida when we simply wish the effect of a hypnotic. But it fulfills the indications when we wish a decided anodyne as well as a hypnotic influence.

I trust that the readers of the *Virginia Medical Monthly* may give this drug a trial, as I feel they will be amply repaid for their trouble.

TO DISGUISE THE TASTE OF QUININE.

A superior method is one we would recommend. It consists of triturating equal parts of sulphate of quinine and sugar of milk, with twice the weight of crystallized phosphate of sodium, and this method can be further improved upon by the addition of saccharin, in proportion of one-fourth or one-third grain to each grain quinine. The quinine when taken in this manner is, by double decomposition, changed to a phosphate, which is soluble in only 750 parts of water.

When taken it is slightly bitter to the taste, and the phosphate of quinine is, so to say, *in statu nascenti*, and will be quickly dissolved in the gastric juice. Gelatin capsules are often objected to by children, and sometimes become insoluble. We have known them, as well as compressed quinine pills, to pass undissolved through the intestines. We know of no more elegant nor practical form of dispensing the sulphate of quinine in powder form than the inclosing in wafers. The wafers, when properly stored away and protected from insects, will keep in all climates; if carefully filled and sealed they prove superior to any modern product of *la pharmacie elegante*. After long experiments, we have, however, found the above described method of employing phosphate of sodium and the lately discovered saccharin, to be useful, and the simplest.—*National Druggist*.

REMEDIES FOR CORYZA.

Roben recommends the use of the following powder by insufflation :

		GRAMS.	
R	Powdered Menthol,	20	gr. iii.
	Roasted Coffee, - - -	5	3i., gr. xv.
	White Sugar, - - -	5	3i., gr. xv.

M. Sig. :—Snuff.

The above mixture has the appearance of snuff and is easily employed. The following is also recommended :

R	Hydrochlorate of Cocaine,	-	-	gr. iss.
	Browned Coffee,			
	White Sugar, - - -	-	-	aa 3 iss.

M. Sig. :—Snuff.

—*Gaz. Med. de Bordeaux*.

THE MICROCOCCUS OF SOFT CHANCER.

DR. R. DELUCA, after a series of experiments upon this subject, has arrived at the following conclusion :

1. The contagious principle of soft chancres resides in a specific micro-organism, the *micrococcus ulceris*. This may be isolated and cultivated, and when inoculated in man, reproduces the soft chancre.

2. Besides the micrococcus ulceris in the soft chancre, are found several other micro-organisms, among which the most important are the *staphylococcus aureus* and *citreus* and the *streptococcus pyogenus*.

3. These last named micrococci are the cause of the simple bubo accompanying soft chancre.

4. When the micrococcus ulceris reaches the lymphatic glands with these bacteria, the ulcerating or phagedenic buboes are produced.

In this case the pus of the bubo assumes the characteristics of the pus of the ulcer only after a lapse of from twenty-four to forty-eight hours, because the micrococcus ulceris requires the presence of air for its growth, and only develops after the lapse of twenty-four hours.

DIGITALIS TREATMENT OF PNEUMONIA.

Petrescu, of the Military Hospital at Bucharest, reports remarkable success in the treatment of acute pneumonia from the administration of large doses of digitalis, given in the form of recent infusion. His conclusions, based upon observation of three hundred and fifty cases, are as follows:

1. Digitalis produces antiphlogistic and direct effects only when given in appropriate doses.

2. This dose is from 4 to 6 grammes (3 j-jss) given during the twenty-four hours, and continued for several days. In this way he has given as much as 20 grammes (3 v.) inside of three days.

3. The treatment of pneumonia by digitalis is the only method of reducing the mortality of the disease to a minimum.—*Philadelphia Med. Times.*

Editorial.

SACCHARINE.

This is a substance which is derived from coal-tar, and which undoubtedly will be of great use in medicine. It is named saccharine, from its very sweet taste. It is an aromatic hydrocarbon. The scientific name for saccharine is anhydrous ortho-sulphamine benzoic acid. It is a white powder composed of irregular crystals and little soluble in cold but quite so in hot water. Alcohol and ether dissolve it easily. Syrups of grape or starch-sugar also dissolve saccharine when warm, and they may thus be sweetened to almost any degree. Glycerine and other bodies may also be used as solvents. It crystallizes in short thick prisms, but the crystals are generally very small and badly

defined. It melts at about 200° C. and partially decomposes at that temperature. Its very sweet taste can best be appreciated by tasting the smallest particle conceivable, but it can be somewhat understood if we say it is 300 times sweeter than cane sugar. In solution the sweet taste can be detected, if there be but 1 part to 70,000 of water, while cane sugar cannot easily be detected if it be dissolved in proportion of 1 to 300 parts of water. It is a powerful antiseptic and hence is indicated and harmless in many cases where sugar in any form would be harmful. It is a great boon then to patients who suffer from diabetes and to those corpulent persons who cannot forego the sweet flavor to their food-stuffs. It will greatly facilitate the carrying out of the strict diet so essential to diabetic patients but which it is almost an impossibility to follow. "As its solution forms an acid, which readily forms salts with bases, it can be utilized to combine directly with alkaloidal quinine." By this combination we have a quinine sulphamine-benzoate which has a sweet taste and is very pleasant to take. With morphia too we have the same combination and the same sweet substance.

"In fermentative disturbances of the digestive tract, when sugar and carbo-hydrates are contraindicated, it may be used as a corrective for the nauseant taste of other remedies, especially so as it has decided antiseptic powers. It may also be used as a condiment for milk and other nutriments to be taken. To improve the taste of elixirs, wines, etc., it seems especially fitted, as they will, under such conditions, have the very desirable property of not deranging the stomach. At the request of Dr. C. Fahlberg, its discoverer, many experiments were made by Drs. Victor Aducco and Dr. Hugo Mosso, of Turin, on animals, on themselves and patients. It was found that this substance does not undergo any change in the system, but is rapidly eliminated by the kidneys. Saccharine appeared in the urine in about a half hour, and at the end of twenty-four hours no more was discovered. They both took and administered this medicine to others, in minute and large doses, and observed no deleterious

result. To several nursing women large doses were given, and there was no appearance of the substance in the milk. The sputas were also examined and there was also none of the substance present. It was determined that it was wholly eliminated by the kidneys, and, as has been before remarked, absolutely unchanged.

Patients taking this substance did not lose in flesh, even when as large doses as a drachm was given daily. It did not produce any abnormal effect or disturb any of the functions of the body. The appetite was increased in all the cases, and in some it was noticed that thirst was allayed. It is our duty then to give this a trial in diabetes, for the two great indications are thereby met; namely, exclusion of all sugar from the diet and the allaying of the intense diabetic thirst. At present it is only manufactured in Germany, where the products for its manufacture can best be obtained. It is doubtful if it will be manufactured here, at present, as the discoverer of the process has patented it in all countries. The combination, also, with the various alkaloids has been patented, hence, its usefulness in medicine is somewhat impaired. It may be interesting to note that saccharine may be used for sweetening grape or starch sugar, one to two parts of saccharine, mixed with 1,000 parts of starch-sugar, forming a substitute for cane-sugar where body and sweetness are required; for instance, this mixture is well adapted for manufacture of confectionery and liquors in the place of cane-sugar.

BUFFALO COLLEGES.

The Buffalo colleges have, all during the present month, opened their doors to the students and, as usual the old schools offer increased facilities. Both medical colleges have added new instructors or professorships to their courses. The Buffalo Medical College opened on Sept. 23d and will continue till Feb. 23d. There is the usual class in attendance, numbering from 120 to 130. At the opening exercises Dr. Hinkel delivered an address and called especial attention to the advances made in laryngology. He announced that Dr. F. P. Vandenburg, who graduated from the

college two years previous and who had been an assistant to the Professor of Chemistry, would succeed Prof. Withaus as Professor of Chemistry; this, however, was a mistake and should have been that Dr. Vandenburg would lecture on elementary chemistry and Prof. Withaus would lecture on medical chemistry. It was understood that Prof. Withaus would necessarily be absent from the city more on account of his having been appointed Prof. of Chemistry in the New York University.

The College of Pharmacy was opened the night previous, and several interesting addresses were delivered. Dr. Vandenburg, the secretary, delivered the address on the part of the faculty. He called attention to the fact that women would be admitted to the college and that two had entered this course. He spoke of the especial qualifications of women for this profession, and thought they were even better adapted for this than for the medical branch. This, however, is very questionable. There must be in the minds of every one a serious doubt as to the advisability of women becoming drug clerks. The long hours and constant standing being very harmful. Yet, we are all glad of this opportunity for them to try to demonstrate which be true.

The Niagara Medical College opening occurred on Sept. 29th. There was a very large attendance of students and their friends. They were well entertained and instructed by Prof. Stockton. There is every prospect of a very large class. The course will continue till April 15th. Want of space prevents our giving an extended notice in this number.

BOILED AND UNBOILED MILK.

The inability or the disinclination of the modern woman to supply to her young its natural pabulum, is the most fruitful cause of the high percentage of mortality in infants under two years of age. The ingenuity of man has united his knowledge of physiology and chemistry, to supply a substitute for the natural secretion, and we have in the market a large variety of artificial foods for infants. While some of these are tolerably

successful, few, if any, are equal to the milk of the cow, which, with slight modification and with proper care in its preservation, may be made to quite closely conform to human milk. In spite, however, of the most scrupulous care, raw milk is most frequently illy borne.

"Recent experiments by Dr. Reichmann (*Deutsch Med. Zeitung*), seem to show that by boiling the milk these difficulties may be obviated. The following are the results of these experiments :

"1. Boiled milk leaves the healthy stomach more rapidly than an equal quantity of unboiled milk.

"2. The digestion of boiled milk is more rapidly accomplished than that of unboiled milk.

"3. The coagulation of unboiled milk in the stomach is complete in five minutes.

"4. The coagulation is not caused by the acid of the gastric juice, but by the influence of a special milk curdling ferment.

"5. The acidity of the gastric juice is, at first, due almost solely to the lactic acid, and, later in the process of digestion, to the presence of hydrochloric acid.

"6. Hydrochloric acid first appears in perceptible amount, forty-five minutes after the ingestion of half of a pint of milk.

"7. For the first hour and a quarter, after the ingestion of milk, the acidity gradually increases, then decreases until the milk has entirely left the stomach.

"8. The curds of casein, in the digestion of boiled milk, are much softer than in the case of uncooked milk.—*Med. Age.*"

In the transactions of the Chicago Medical Society, for May, Dr. W. T. Belfield is credited with presenting specimens of the *anchylostomum duodenale*, a parasite of the nematoid variety, taken from the intestine of a cat, which died from anæmia. Attention was first called to this worm in 1838, by Duteni, of Milan, but its true pathological significance remained to be explained by Griesinger in 1851, who identified it as the primary agent in the causation of persistent anæmia and

chlorosis, so common in the East Indies, and the warmer countries of both the eastern and western continents.

Numerous instances are recorded by German writers of their presence in the small intestine of both human subjects and those of various animals, dissected in laboratory work. In appearance they resemble somewhat the small thread worm. It is about 8 to 10 lines in length, and has a cone-shaped head, from which projects four tenacula. By means of these they fasten themselves to the mucous lining of the intestine, and extract the blood of their unfortunate victim.

In addition to the chlorotic state, which characterizes their presence, tympanities and pain is generally found over the small intestine, and in the later stages, watery stools, often containing blood, are present. All efforts to obtain specimens of this parasite from the stools have, as far as can be learned, been unsuccessful.

In Brazil, where the disease is quite frequent, the pulp of fresh figs is said to rapidly effect a cure. An alcoholic extract prepared from the juice of the *figus doliaria*, a variety of fig found in Brazil, and known as *doliarina* is considered the best anthelmintic to be employed, and is administered in conjunction with iron and other remedies, to combat the marked anæmia, always so characteristic of diseases in which the primary cause is found to be some vitiated condition of the blood.

HENRY HERRMANN, long known as a manufacturer of Surgical and Orthopædical Instruments, has wisely determined on the removal of his factory and store to a location more convenient for physicians. On or about October 15th he will remove to No. 9 West Huron street. The store is being thoroughly renovated for his special wants, and when finished, it will be the most complete establishment of the kind in Western New York. With the latest improved machinery he will be enabled to fill all orders at lowest rates. Mr. Herrmann's practical ability in the mechanical treatment of all deformities of the human frame and hernia, also of the manufacture of surgical instruments and cutlery, is generally recognized.

Reviews.

A Manual of Practical Therapeutics, considered with reference to articles of the *Materia Medica*. By EDWARD JOHN WARING, C. I. E., M.D., Fellow of the Royal College of Physicians, London. Edited by DUDLEY W. BUXTON, M. D., B. S., London, member of the Royal College of Physicians; assistant to the Professor of Medicine at the University College, London, etc. Fourth edition. Philadelphia: P. Blackiston, Son & Co., No. 1012 Walnut street. 1886.

"During the two and thirty years which have elapsed since the first edition of this manual made its appearance, therapeutics, both in theory and practice, have undergone many important changes and advanced with rapid strides in common with other branches of medical science." This work has been revised from time to time during this period, and is now brought down to date. Many subjects of less interest being omitted or curtailed considerably, so that the size of the present edition is about the same as former numbers of the work. The work of review was carried on by the editor himself until infirmities of advancing years obliged him to desist. He continued it as far as the article on quinine. After this the work was performed by Dr. Burton, who is well qualified to continue it. "He has also written the articles on mineral waters, malt, pepsin, peptonized foods, oleic acid, salicylic acid, and the salicylates, nitro-glycerine, nitrites, sulphites, etc. These contributions cannot fail to give increased value and interest to this edition." The work is a safe guide, and a valuable addition to the physician's library.

Analysis of the Urine, with Special Reference to Diseases of the Urinary Apparatus. By M. B. HOFFMANN, Professor in the University of Gratz; and R. ULTMANN, Tutor in the University of Vienna. Second enlarged and improved edition. 8vo. Cloth, \$2.00. New York: Appleton & Co., 1, 3 and 5 Bond street.

This admirable work is translated by Drs. Brune and Curtis. The first edition called forth, the unqualified praise from the medical press, and we are glad to see a new edition, for we believe it to be one of the best guides to the diagnosis of diseases affecting the urinary apparatus. The plates which accompany it are excellent.

A Manual of Dietetics. By J. MILNER FOTHERGILL, M. D., EDIN., Physician to the City of London Hospital for Diseases of the Chest (Victoria Park). Hon. M. D. Rush Medical College, Chicago, Ill., Foreign Associate Fellow of the College of Physicians, Philadelphia. 8vo. extra muslin. 255 pages. Price, \$2.50. New York: William Wood & Co.

This is a new and original work. Its distinguished author has devoted much time to the study of dietetics, and in view of the modern advances in our knowledge of the physiology of digestion, its appearance is most timely. Proper feeding in disease is often more important than the administration of drugs, and this book admirably covers a most important, and up to the present, neglected field. The subject is treated in a masterly way, and the style is so sprightly that few physicians taking it up will not be interested as well as instructed. We must heartily advise our readers to buy the book.

A Reference Hand Book of the Medical Sciences. Embracing the entire range of Scientific and Practice of Medicine and Allied Science, by various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by ALBERT H. BUCK, M. D. Vol. III. New York: Wm. Wood & Co. Buffalo: Matteson.

The third volume of this great work contains, more or less, complete references to almost every subject within the range of medicine and its collateral sciences, which alphabetically falls within the range between F A C and H Y S, and the writers of the various articles have proven the fitness of the selection for the work. It is plain that no expense is being spared in the publication of this great encyclopædia of medicine. We are informed that the number of subscribers for the work has surpassed all expectations, but the profession is always ready to show its appreciation of thoroughly good work.

The Genuine Works of Hippocrates. Translated from the Greek, with a Preliminary Discourse and Annotations. By FRANCIS ADAMS, LL. D., Surgeon. Volume II. Being Vol. VII. of Wood's Library for 1886. New York: William Wood & Co.

In noticing the first volume we expressed the opinion that this admirable translation would be a valuable addition to Wood's Library, and this second volume fully confirms our opinion. It will be read with interest by many.



VOL. XXVI.

NOVEMBER, 1886.

No. 4

Original Communications.

THE MEDICAL PROFESSION: ITS NATURE AND TENDENCIES.

By CHARLES G. STOCKTON, M. D.,

Professor of Materia Medica and Therapeutics, Niagara University.

Mr. President, Ladies and Gentlemen:

This evening the faculty of Niagara University has occasion to say welcome, not alone to those whose faces are familiar to these walls, but to a new class about beginning the study of a learned profession.

Nearly a hundred such gatherings as this in as many regular colleges throughout this broad land witness the congregation of ten thousand students of medicine annually.

There are already many doctors in Christendom, yet additions to the ranks are forthcoming. Upon every gala day, when young humanity crowds the thoroughfares, the eye must rest upon many future candidates for medical honors. Although they go unrecognized, nevertheless they are there, and in numbers relatively increasing.

What are the tendencies, what the social forces that thus shape the futures of so many young men? A reply introduces

a broad subject, the consideration of the nature and object of the medical profession.

It is a subject that ought to be of peculiar interest to medical students, and while it can be only briefly treated in an address of this kind, there are reasons that, to my mind, justify an effort towards its accomplishment.

A man's conception of what makes up the profession can, in part, be known if he will explain his purpose for embracing it. Now, it does not appear to be an easy task for men to state their reasons for following their chosen callings in life. Indeed, they generally seem to walk into the matter heedlessly, without reaching very positive conclusions or having very definite aims, with this one remarkable exception: they go in to make money.

Probably the majority of the ten thousand fresh students purpose adopting the profession in order that they may make a living. Now, to make a living is unquestionably a most natural and honorable undertaking, and no doctor is to be blamed, I suppose, for *trying* to live by practicing medicine; but the question now before us is asked with a view of analyzing the conception that you may have as to what constitutes the profession, and the question is put to each: What is your object in entering it? Let us take the reply of the majority, and, for the sake of argument, say that you go in to make money. As a fact, this answer is rarely altogether true. A man may think his purpose is to acquire riches, but before he has been long enlisted in practice; before he has often engaged grim death in deadly conflict; before he has often felt the confiding pressure of the sick one's palm; before he is long accustomed to the sensation that his own personality brings calm and hope and cessation of pain to his fellow-creatures who entrust their lives to his judgment and skill—he will reach the conclusion that he has to do with something of graver import than the making of money.

Why, you cannot practice medicine for money. Where would it carry you; where would it carry the profession; where would it carry society?

Suppose all physicians should adopt the methods of those in trade and say: Good health has a certain commercial value; we will agree to cure your ailments for cash; a fair discount for job lots. This would have a strange effect upon the people, notwithstanding that they now have the spirit of barter so thoroughly imbued in them, that many think they would welcome such a state of affairs. And this public opinion has a great influence upon the profession, just as the profession has on public opinion. "Our deeds determine us as much as we determine our deeds."

So, suppose the profession demoralizes the people and the people demoralize the profession, until we sink to a step where we say: We are for gain; we are for ourselves; we are venal; we prepare ourselves for practice quickly, and the legislature supports us; our diplomas are of the most attractive character, and we purchase many of them; behind our names are many letters signifying many ill-gotten degrees; we advertise our medical schools for the celerity with which they pour out doctors, full-fledged, in the eye of the law. The largest class of students frequent that school having the shortest course of study and the lowest standard of examinations. Oh! yes, we are a contemptible profession, but remember that we are now venal. What care we for the race of man? It is the race for money that concerns us. We are specialists of every known organ of the human body, and we do not hesitate to say that in our researches we have reached the very *ultima thule* of knowledge, and we will have the people know it. We advertise it widely. The public speech, the public print, the public exhibition are all drawn upon. We are making a sensation.

Hold, brothers of the medical profession! Stand fast; remember the objects of our high calling, the examples of our fathers, the requirements of medical ethics. Alas, we are slipping sadly! Professional honor hampers business; so let us establish a new honor on a paying basis. Science is at a discount, and its nursing waste of time. The spirits of unnat-

uralized truths retrace their phantom steps into the far distance whence they came.

Does the profession seem crowded? Well, that can be arranged by creating new and artificial systems of medicine; they will compete with each other and make things interesting. Truth need not obstruct our way, since there remains no guide for the people. Establish pathies upon impossible bases, and swear to accomplish that which is impossible. Let there be vita-pathies that deal with the essence of life and trifle with the secrets of the unknowable. Water is a constituent of all organic matter; let there be hydro-pathies. Oxygen is a component part of nearly everything; let there be oxygen-pathies. That which is nothing overcomes that which is everything; let there be homœopathies. Opposition to death always defeats it; let there be allopathies. This is the age of pathies, no matter if it becomes the age of error. We have no interest, save self-interest. We are on the make.

Devote your time to learning cures and then patent them; keep them secret; sell them for all they will bring. Erect great wholesale houses of health; endow them with cheap staffs of doctors and the blind credulity of fat-headed people, and see the funds accumulate. Advertise yourselves and your houses in congress; advertise in religious papers, that were established for the sole purpose of supplying the believer with truth. Insert advertisements of pills, whose purposes are disreputable, disgraceful, inhuman and murderous, on the same page with an editorial on "the efficacy of prayer." If this doesn't fill your coffers, persuade some sort of a clergyman to certify that he was cured of the last stages of a deadly cancer that was devouring his vitals, by taking your favorite remedy. If this is insufficient, offer prizes to astronomers for catching comets. Let it become a popular impression that you are the fosterers of science and the fathers of comets.

But there are other fields. Fence in the baths, and wall round the mineral springs. Reserve the right to the operation that bears your name, publish the *good* results in the daily press

and out-advertise your neighbor. Bother with the profession and with codes. The profession is a fetish, and codes are unbearable. Neither is necessary in selling groceries, nor meat, nor tin; why should they be in medicine?

Such a portrayal as this is not untruthful of the result that would follow the going of all doctors into their profession solely for personal advancement. You see that you must broaden the horizon of your purposes, else calamity will fall upon both your purposes and your profession. For, clearly, society would not support so outrageous an organization, after society had sufficiently endured. When it should be known that the profession was unworthy of confidence, then the profession would die. There must be an honest, heroic man at the bedside where one's child lies sick of diphtheria; there must be organized co-operation to direct the quarantine, and stamp out the flame of pestilence; there must be long study, slow of recognition, to enable us to understand the causes, the courses and the curses of disease.

Society needs us, and must protect us in order that she herself may be protected; and as she is elevated and pure in her regard for the profession, just in such proportion will medicine and science advance, hastening the progress of society.

Yes, this close relation between society and the profession is so necessary, that there can be little doubt that the rise of the profession was synchronous with the rise of civilization.

The early man with his powerful digestion, his unimpressible nervous system, and his hardy thews, no more needed medicine or surgery than does the camel on the sands, than does the hibernating bear. For whether inured to the damp and cold, like the cave men, clad in the skins of beasts little more savage than themselves, or whether seasoned to the refulgence of the burning sun, driving their flocks across arid plains, from one spot of verdure to another, eating kids and drinking the milk of goats—Oh! they were not sick. Sickness! it is the price of our evolution from the life of savage tribes, into the power, beauty and usefulness of Christian nations.

Think of those remote periods, when men in rugged health slept close to their mother earth, under the cover of the night, rising each morning to wander to some new primeval habitation, far from contagion, far from the ravages of the infestuous microbe.

There were giants in those days; and but for floods and famines, but for wild beasts and bloody battles, men almost never died. They counted the centuries as years, and saw the everlasting hills grow old around them.

But with the advent of civilization came arts and artificial lives, men lived in crowds and spread disease, and then came thoughts of medicine.

When one man had more experience and success than his neighbors in relieving their complaints; when one was recognized by his community as a healer; when he accepted the situation and perceived the importance of learning and teaching—just then began the profession.

We are apt to date the rise of medicine and of the profession back to the days of Hippocrates; but, doubtless, before him for ages the world had not only her doctors but her profession of medicine. And, as a profession, contributing largely to the culture of the times, that faded as civilization faded, and brightened as civilization brightened, helping materially towards the common goal—the welfare of the race and the emancipation of man, up to the time of written history. Then came the almost divine utterances of Hippocrates. A formula of what the profession should be, came from the lips of that man with nearly the same confidence and authority as that which inspired the expounder of the ten laws graven in stone by the finger of God. So far were these utterances in advance, that the race has not even yet come to understand them, and so far ahead of the profession, that many of its members fail to apply their truth. Physicians have been too human to be Hippocratic; the practitioner too much for the individual, and not enough for the profession to bring into a state of perfection that which will yet become perfect when mankind comes into his high

estate. The planet will doubtless be very gray and wrinkled ere this shall be brought about, but the time must come when the spirits of the old veterans of the regular medical profession shall assemble to celebrate the universal excellence of the cause for which they fought, perhaps, many thousand years ago.

Those of us who are there, with vision amplified, shall perceive in the retrospective that great resultant of the professional labor which now stretches away into the future, too obscure for our safe speculation. For the ends of medicine are further reaching than the accumulation of riches, or the relief of human suffering, or the immediate benefits of the culture that necessarily accompanies the study of this branch of knowledge.

There must be evolution in the profession if there is in society; and when one reaches perfection, there will it find the other. We of the nineteenth century have upon us the responsibility of helping to that end. It is a responsibility that cannot be avoided; it is a duty that we cannot go around.

* * * * * We may contrive, prevaricate and dissemble, but in truth the fact remains that the profession is not what it should be, not what it is to be; and that man who strives most to elevate and refine it, succeeds doubly, for he also elevates and refines himself. Now let me advert to the question: What is your object in studying medicine? If we agree in what has been said, the reply, it would appear, is evident. There can be but one true reply. It is, we enter medicine to improve it, and thereby to improve society and ourselves.

Is this all a nonsensical notion, a quixotic idea? No; there can be nothing more practical.

The physician who sacrifices his professional standing for selfish purposes, is a moral ruffian. He is like the vandal who knocks off the ear of a Parian figure and barter it for a shilling. He is a debaucher of medical morals, and should be punished by medical societies not only, but an acquiescence of public opinion should manifest itself, in denying to such a member the right to practice a profession which he has befouled. There

should be no sympathy for such a man, except that which is accorded any other common sinner who repents, reforms and pleads for mercy. If the people and the profession would only unite in this respect, how much easier would be the struggle; which is another suggestion of the truth that the world and the profession must grow together.

It sometimes seems to a discouraged man that the task is hopeless. It seems to him that his efforts in the right direction are like the vain endeavors of Sisyphus with the stone.

This, however, is only the view of the discouraged man, and none of this kind have any business in the profession. The work before us will not be accomplished until the earth grows weary in its revolutions, and the man who tires of his small share is only a clog to the sandals of progression.

Yes, the object of every student should be as lofty as this: to improve medicine, that medicine may improve society. And society does not fail to recompense him who labors for her honestly and well. Reference is not here intended to those gifted men whose works have added millions of years of useful life to the human race; not to John Hunter, nor to Jenner, nor to Pasteur, nor to the few whose names are familiar and blessed to all, but to the every-day, well-educated, observing, thoughtful, conscientious doctor; him who does all of which he is capable for the relief of his fellow-man, who is the leader in the anabasis, and the rear guard in the katabasis of life. Society does not fail to recompense him, I say, for if he be not rich he has enough, and if he be not distinguished, he has the opportunity so to become, if his natural endowments permit of it. In medicine, the world is full of opportunities gaping to be filled, if we have but the ability to fill them. And the matter of ability is not so much what is commonly termed "natural gifts," as it is the power to work. Hard work is the talisman of success.

Gentlemen, to speak beforehand, let me ask you to put yourselves under the extraordinary influence of this talisman when you come to that department of your studies which it is my privilege to teach in this institution.

My learned and eloquent colleagues were so sensible of the importance of the subject of *Materia Medica* and *Therapeutics*, that I was selected to deliver this opening address, being thus afforded the first opportunity, and I take advantage of it to request that you bestow all your available time upon learning remedies and their applications.

Doubtless, you will have soon a burning affection for "the midnight oil." You will cease to indulge in current literature and fly from the blandishments of the latest novel; the theatre you will relegate to Christmas week, and the charm of the reception room will be forgotten; you will turn from politics and pleasures, and give yourselves over to a new mistress, who will prove at least as tireless as yourselves.

You will discourse upon the multitude of tonics, and puzzle your brains that, with so many of them yet, you fail to make a weak man strong. You will devote yourselves to antipyretics, and wonder how it is that as often as you down the temperature, it rises still again. You will become absorbed in the fact that there are heart stimulants which render the action of that organ strong and efficient, and yet you turn aghast when you discover that, in spite of these, the pulsations grow quicker and feebler, the respirations become irregular and shallow, the extremities turn cold and moist, the muscles relax, the face blanches, the pupils dilate, the chin falls, and, heedless of your exertions, the tortured soul slips its fetters, and is gone.

This you will see, and from it be reminded: that the therapist has to deal with problems that involve that mystery which we call life; that there are unknown quantities remaining in all our calculations, and you will learn that remedies are not to be arrayed in your mind as cures of maladies, and that there is not a known specific for any disease under the sun.

This philosophy is more profound than that which declares a deadly weapon for every intruder, a cure for every ail. The close interpreter of Nature renders her picture-writing into words. She says: I am mistress of the body; it develops, exists and decays in harmony with my laws; when diseased, if

you would restore it to health, learn my laws and let your remedies be in compliance therewith. You may assist me, but you cannot thwart or escape me.

It would be profitable if we always thought of this before prescribing, and it would be well to learn the action of medicines with this in mind.

In army encampments, there is a "color line," and every dutiful soldier who crosses it, there salutes the flag. Now, every time that we administer drugs to a patient, we cross the Nature line, and if we are not required to doff our hats to the old dame, we have to be in other ways extremely deferential and agreeable to her, or it will be the worse for us and for our patients.

By this I mean that when we dose a man, we, in a measure, take the guidance of his vital phenomena out of the hands of Nature; and I hold that when we assume so great a responsibility, we had better remember that Nature has had a good deal more experience than we have, and the safer plan is to observe closely her methods and adhere to them. There is no department in medicine where a man requires so much knowledge as in *Materia Medica* and *Therapeutics*, in order that he may be turned loose upon a suffering world as a young doctor—safely.

May you so learn this subject, that when you come to apply your knowledge at the bedside, it will be with this rule in mind: If you don't *know* what to give, give nothing.

**THE WATERY DISCHARGES OF PREGNANT WOMEN.*

By C. C. FREDERICK, M. D.,

Lecturer on *Obstetrics*, Niagara University.

Mr. President and Gentlemen:

To the physician who sees a considerable of obstetric practice it is not so very rare an occurrence to receive word from some one of his patients that her waters have broken. It has occurred to me and I have known of several others. On questioning the

^{*}Read before the Buffalo Obstetrical Society.

messenger or patient the doctor finds that she has not had the usual first stage pain before the watery discharge, and on examination the cervix is found undilated, as it may be weeks before her expected confinement. She may, or may not, have had pain, but not labor pains. I have selected this case to bring before you for discussion to-night, not so much for its theoretical as for its practical consideration. The etiology and pathology we will touch upon, but the diagnosis and the prognosis to mother and child, together with the treatment of the condition, are more essential to us to-night.

Considering the history of the case we may very appropriately ask several questions, most important of which are :

- 1st. Whence comes this water ?
- 2d. What does it portend ?
- 3d. What shall we do ?

The diagnosis involves the differentiation between (1) a discharge of amniotic fluid, or (2) the ammo-chorial water, which sometimes collects between the amnion and chorion, or (3) a *hydrorrhœa gravidarum*.

The cases of early rupture of the amniotic sac, we all know to be from violence, or *hydramnios*; the amnio-chorial waters may collect in large quantities, so as to simulate *hydramnios*, but their escape is followed by a sense of relief to the woman. A discharge from this source can only occur once, and is seldom followed by premature labor. The fluid of *hydrorrhœa gravidarum*, or *endometritis decidua catarrhalis*, as the name implies, results from a catarrhal inflammation of the decidua. Any antecedent *endometritis*, be it of gonorrhœal, syphilitic, or of other origin will be a starting point, and in a condition of *hydræmia* the disease would be most sure to develop. The inflammation effects the decidua vera by preference, but may also effect the decidua reflexa. The fluid from the glands of the tract involved is thin, muco-purulent, watery or sero-sanguinolent, and very nearly resembles the amniotic fluid in odor and color.

If free exit be given it, the quantity is small and continuous. If there be any obstacle to its exit, as the normal adhesion

between the decidua reflexa and vera or impenetrability of the os from any cause, the secretion will accumulate in considerable quantities and will force its way through or between the decidua and run from the patient with a gush. This discharge may begin as early in pregnancy as the third month, but the more abundant discharges occur in the later months.

It will be seen, therefore, that there can be but one discharge of amniotic fluid, or amnio-chorial waters, while the discharges of hydrorrhœa gravidarum may recur many times during a pregnancy and not cause premature labor. Ordinarily a rupture of the amniotic sac is followed by labor, and some authors go so far as to say it is always followed by labor. In refutation of the latter statement, Dr. Byford, of Chicago, reports a case occurring in the practice of Dr. C. R. Parke, of Illinois, "in which, a discharge of the liquor amnii took place, labor pains came on and the umbilical cord became prolapsed. He replaced the cord and gave ergot. As labor did not progress he finally gave morphine and quieted the pains. In three months the woman was delivered of a living child; mother and child did well."

Now, Mr. President and gentlemen, can there be an absolute differential diagnosis made between these three different conditions? The premature rupture of the membranes, the discharge of the amnio-chorial waters, or the discharges occurring in hydrorrhœa gravidarum.

When a watery discharge comes on synchronously with a fall, or some other violence, we have presumptive evidence that the water comes from the amniotic sac and that it will probably be followed by labor. Rupture of the amniotic sac seldom occurs in the first five months of pregnancy, except by violence or in abortion, as the direct result of uterine contraction.

A rupture of the amnion seldom occurs in the later months of pregnancy except when there is a great excess of amniotic fluid, hydramnios, or by violence. Hydramnios occurs most frequently in older multiparæ, and ordinarily may be suspected to exist by reason of the size of the uterine tumor being out of all

proportions to the period of utero-gestation. Here also we have to diagnose differentially between a twin pregnancy, hydratidiform mole and hydramnios. Twin pregnancies can be diagnosed by auscultation and palpation. Hydratidiform moles usually are expelled before the sixth month, and if they remain after that period will be diagnosed by the absence of the fœtal heart, the currant-juice discharge or vesicles from the growth. The discharge of the amnio-chorial waters most uniformly occurs during the later months of pregnancy and cannot be diagnosticated from the amniotic fluid except by examination. If the os be patulous enough to allow the examining finger to be pushed up and the membranes found intact, by making pressure over the fundus with the other hand, as in palpating a cystic tumor. The discharges of hydrorrhœa gravidarum begin early in pregnancy and increase in amount, and may occur frequently every few days or weeks. The second occurrence of a discharge is presumptive evidence of its existence. Then, gentlemen, the question above propounded may be answered thus: There is no absolute differential diagnosis between all these conditions, but by the careful examination and analysis of each case, a diagnosis and prognosis can be formed that is reasonably free from doubt.

What plan of treatment is applicable to each of these conditions? With the amniotic sac ruptured, labor, not far hence, is imminent, and what matters it if the child be past the viable age? If it be before the age of viability, the indicated treatment is rest and anodynes.

With the hope that the water does not come from the amnion, but that it is from one of the other two sources, it is well to place the woman in recumbency and give viburnum and opium; and this is probably the best uniform treatment for each and all of those discharges, that may or may not be accompanied by symptoms of threatened miscarriage or abortion.

The repeated discharge of so much fluid in hydrorrhœa gravidarum is a large drain upon a woman, and needs to be met by active tonic treatment during its continuance.

Are we justified in any manner to take it for granted that a discharge of water from the vagina of a pregnant woman means labor, and if the cervix is undilated, and there are no labor pains, to proceed at once to give ergot and dilate? (I have heard of doctors being censured for failing to do this, after the delivery of a still-born babe). Emphatically, no.

Clinical Reports.

TREATMENT OF PRURITUS PUDENDI.

By E. S. MCKEE, M. D., CINCINNATI.

In a clinical lecture, in the Gynæcological Clinic of the Medical College of Ohio, the author discussed the treatment as follows, and gave the remedies here presented:

First we should ascertain the cause of the disease to treat it intelligently, we should treat the constitutional trouble, where we are apt to find the origin of the disease; next, we should treat the morbid phenomena, the pruritus. Remove the cause and the pruritus will disappear of itself. The parts should be washed twice a day with castile soap and water; the diet should be vegetable, and regular action of the bowels maintained; as a general rule stimulants should be disallowed. In this vexatious trouble, for we can hardly call it a disease, you will need all the remedies you can find. The following are the best:

4	per cent.	solution of	Boracic Acid.
2-10	" "	" "	Carbolic Acid.
2-5	" "	" "	Argenti Nitratis.
0-5	" "	" "	Bichloride of Mercury.
25-50	" "	" "	Sulphurous Acid.
6	" "	" "	Sodii Biborat.

Ointments of tar, boracic acid, camphor or iodoform, mixtures of camphor and chloral, infusions of tobacco, 20 per cent. solution of chloroform in almond oil.

Treatment with the bichloride should be preceded by a removal of the mucous with warm water, and then dry with a soft linen; pass a sponge moistened with the solution rapidly over the affected part. This leaves a smarting, burning sensation, which is alleviated by a few minutes washing with cold water; subsequent applications become less and less painful.

M. Dubois recommends, in the rebellious cases, that the entire surface of the vulva be cauterized with a solid stick of the nitrate of silver. The great objection to this is that it is extremely painful, and the alleviation produced by it is almost always temporary.

R. Meigs recommends:

R	Borax,	-	-	-	5 ii.	
	Morphi. Sulph.,	-	-	-	gr. iv. ss.	
	Aquæ Rosæ Dest.,	-	-	-	3 viii.	M.

Sig.:—Apply three times a day to the affected part with a sponge or soft piece of linen; take care to wash well the parts beforehand with soap and warm water, and dry them well afterward. A compress dipped in the oil of sweet almonds and laid in the commisure of the vagina is recommended.

When the trouble is general, temporary relief may be obtained by placing the woman in a prolonged soda bath, and subsequently rubbing the entire surface with vaseline.

Pruritus which has extended upon the distended abdominal walls is well treated with:

R	Lin. Saponis Comp.,	-	-	-	3 v.
	Chloroformi,	-	-	-	3 i.

Sig.:—Apply locally.

If the itching comes from an ulcerated cervix, or more properly from the irritating discharge proceeding from it, apply nitrate of silver and introduce tampons of tanno-glycerine.

Pruritus from breeding pediculi is well treated by mild mercurial ointments; stavesacre answers well. A plasma formed of flowers of sulphur and water, saline purgatives as Pullna or Fredrickshall water, Vichy baths, or even bathing

with cold or tepid water, constitutes the best palliatives ; salines and colchicum may be indicated, also bromide of potassium, a weak solution of Goulard's lotion, or a lotion composed of:

R	Liq. Morph. Hydrochlorate,	-	-	3 i.
	Acid Hydrocyanici,	-	-	3 iss.
	Aquæ,	-	-	3 vi. M.

Sig. :—Use as a lotion.

Translations.

RELAXATION OF THE PERINEUM AND VULVA DURING CONFINEMENT.

BY DR. AUVAR.

Translated from the *Journal de Médecine*, by Edward B. Angell, M. D.

In order to allow the passage of the fœtus, the soft parts which form the genital canal have to dilate and open, without which delivery would be impossible. This relaxation during labor is manifested successively in the course of the cervix, of the vagina and perineum, and finally of the vulva. The only question here considered relates to the perineum and vulva, the soft parts which require special attention on the part of the obstetrician, for they frequently are the cause of a difficult labor, while after confinement their lesions may have serious effect upon the health of the woman. Relaxation of the perineum and vulva may be accomplished in three different ways: by the bag of waters: by the presenting part of the fœtus; or, finally, by manipulation.

Relaxation produced by the Bag of Waters :—The bag of waters is, as we know, that part of the envelopes of the ovum which is exposed by the dilatation of the cervix. Under normal conditions the bag of waters is ruptured spontaneously when the dilatation is complete. It is through this opening that the fœtus passes from the interior of the ovum and the genital organs. In some cases this rupture is delayed, and then the bag of waters, in accordance with the advance of labor, protrudes more and more perceptibly. It encroaches upon the vagina, reaches the orifice of the vulva and forms a hernia. These cases of tardy rupture have been attentively studied by Dr. Byford of

Chicago. This celebrated accoucheur believes that in a similar way the bag of waters acts efficiently upon the perineum and the vulvo-vaginal opening and occasions their distension. The action of the bag of waters is the same upon the soft vulvo-perineal tissues as upon the cervix, whence the conclusion that this membrane should not be ruptured artificially, till dilatation is complete. In accordance with this theory, Dr. Byford recommends, in cases where rupture of the membranes occurs before this distension of the orifice is accomplished, the introduction within the vagina of a rubber bag, which may be inflated with air or water. In reply to Dr. Byford, Dumas discusses the following question: Is it possible in the majority of cases, to count upon the bag of waters for dilating the lower orifice of the vagina? And, at first, how is the bag of waters formed? Authorities are scarcely explicit upon this subject. Two hypotheses are held at present: first, either the membranes undergo an enormous distension at the level of the cervix, thus causing the prolongation which forms the bag of waters (theory of elongation): or, secondly, the membranes, up to a certain height, are separated from the lower segment of the body of the uterus, and come into contact with the obliterated cervix (theory of detachment or gliding). Against the theory of elongation the experiments of Duncan may be cited, which show that the membranes are very slightly elastic. The more rational theory is the one of detachment and gliding. The ovum is detached from the inferior segment of the uterus, and the uterine wall, owing to the obliteration and dilatation of the cervix, is drawn up along the wall of the ovum leaving it partially exposed. It is not, according to Dumas, the ovum which slides down along the uterine wall, but rather the uterine wall which glides up over the ovum. The ovum is passive, the wall of the uterus active. By this mechanism of detachment are readily explained the slight hæmorrhages which are noticed at the approach of labor, as well as placental detachment in cases of placenta prævia. With this detachment, which may be very extensive, we can understand the possibility of a very prominent bag of waters without needing to assume great elasticity of the membranes. Why is it that, with the freedom given to it by this slipping upward, the bag of waters, is so flattened in normal cases, in normal presentations of the head? This is due to an interesting mechanism. The head forms a plug, when applied upon the inferior segment of the uterus, in such a way that the amniotic fluid above does not escape. Hence, at the

moment of contraction, the fluid beneath the head is subjected to a relatively small pressure, in consequence of which there is little or no bulging of the membranes.

When the dilatation is complete, the cervix no longer sustains the head which descends and, while pinning down the membranes laterally, presses upon the bag of waters in such a way that rupture takes place at this moment. In cases of faulty presentation, the foetal part not forming a cork, the amniotic fluid may accumulate in the bag of waters, which then becomes enormous. Hence it is plain that in normal presentations of the vertex, a voluminous bag of waters cannot exist, and to attempt to gain this object, as Dr. Byford advises, for the purpose of facilitating distension of the vulvo-vaginal orifice, is an impracticable matter. M. Dumas shows clearly that a voluminous bag of waters is, or ought to be, an exception, but he does not assert whether, in the cases where it does exist, it is capable or not of dilating the vulvo-vaginal opening. Now, in the different cases where I have seen this special form of the bag of waters, I have not observed it exercise any real influence upon the external organs of generation. Upon the cervix itself the bag of waters only acts efficiently when it is accompanied and reinforced by a foetal part. It is very probable that alone it is powerless to open the uterine gate. Call to mind those enormous bags of water filling the whole vagina while the uterine orifice is hardly open. It is plain that if the suggestion of Byford is not practicable, it little matters, for, if it were possible, delivery would in no way be facilitated.

Relaxation produced by the Fœtus :—Relaxation of the perineum and vulva is produced in the natural way by the foetal part, which, driven onward by the utero-abdominal contractions gradually opens a way of escape. Through this effort the dilatation of the soft parts is accomplished. The different foetal regions are not equally adapted to this function, and for the same presentation, position is not a matter of indifference. For example, in a head presentation the distension of the soft parts is better accomplished with an occipito-pubic than with an occipito-sacral position. It is for the sake of remedying the difficulties of this stage of labor that special manipulations have been employed to which a few words will be devoted.

Relaxation produced by Means of Manipulation :—For a long time obstetricians have attempted various measures for distending and opening the soft tissues of the genital canal along which the fœtus

escapes, hoping thus to facilitate labor. These attempts have been directed either to the os uteri, the vagina, or the perineum and vulva; they are known by some accoucheurs under the name of the "lesser labor" in contra-distinction to the real labor, the former being artificial, while the latter is natural. The most of these measures have to day fallen into disrepute, for not only are they nearly always useless, but they may become mischievous through causing irritation and inflammation of the maternal tissues. It is necessary to remember that if this conclusion is well founded with respect to the cervix, it is not wholly so regarding the vulvo vaginal orifice. Among the various expedients resorted to for this purpose, one of the best, certainly, is that suggested by Prof. Dumas and published in the *Montpellier Medical* of 1883, to which he gave the generic name of præ-fœtal dilatation of the vulva. The *modus operandi* is as follows: Three fingers of the right hand (the thumb, index and middle finger) are, at the moment of expulsion of the head, introduced into the vagina. Applied upon the fœtal head they are gently separated so as to make them glide between it and the vaginal orifice. They should be applied deeply enough to experience a moderate degree of pressure between the head and the vaginal opening. In this manner the fingers form in front of the head a sort of a cone or tripod, which passes through the vulva, its base being applied to the head, while its pointed end is outside. This cone, which thus surmounts the fœtal head in a way similar to a clown's cap, exerts a preliminary dilatation upon the vulvo-vaginal orifice. The influence of the bag of waters upon the cervix, as Dumas suggested, may be compared to the artifice resorted to by pharmacists in passing a rubber ring about the neck of a bottle; a small wooden cone is placed over the cork, point upward, along which the elastic ring glides, gradually enlarging as it is pushed downward.

M. Dumas denies any sort of relationship between his method and the "lesser labor" of certain obstetricians. In the "lesser labor" the fingers act directly upon the soft tissues, producing relaxation by means of massage or stretching. In præ-fœtal dilatation it is the fœtal head itself which acts upon the vulva through the intervention of the fingers. There is, perhaps, between the two methods a shade of difference, but only a shade.

The clinical results obtained by præ-fœtal dilatation have been stated by M. Passarini in his inaugural thesis. Out of sixteen cases

where the method had been employed, twice only was there a tear of the perineum, of $1\frac{1}{4}$ inches in one case, and $1\frac{1}{2}$ inches in the other. Præ-fœtal dilatation hastens markedly the stage of expulsion, which, in place of lasting two to three hours, is accomplished within the limits of twenty-five minutes to an hour and twenty minutes.

Conclusions :—What practical deductions may be drawn from what has preceded? Should a physician, attending a woman in confinement, rely upon the bag of waters and upon the fœtal portion presenting to effect the dilatation of the perineum and the vaginal orifice, or should he endeavor to give assistance by means of manipulation? We have only a choice between natural distension, spontaneously effected by the fœtus impelled by the utero-abdominal contractions, and the method of præ-fœtal dilatation. Now, we believe the accoucheurs of Paris are pretty unanimous upon this question. Save some exceptional cases where such measures may be safe, and among them that of M. Dumas is certainly one of the best, it is preferable to leave to natural forces the distension of the soft parts of the mother, the attendant combating, on the one hand, over energetic contractions of the uterus and abdominal walls, and giving assistance, on the other, by the application of forceps or by manual traction, if their action is too feeble. With the eminent professor of Montpellier we believe one can never reckon upon the bag of waters, its action being eminently serviceable for dilating the os uteri, but inefficient upon the perineum and vulvo-vaginal orifice.

The duty of the accoucheur is to sustain the perineum, not to dilate, depress or open it. Either the perineum is sufficiently elastic and the fœtus depresses it without tearing it, or its elasticity is deficient, and all methods are powerless to give it that suppleness essential to normal delivery. Every measure, which consists either in drawing the perineum forward, in pushing it backward or in an effort to give it tone by stretching the lateral portion of the vulva, seems to us equally illusory. The secret of the integrity of the perineum, during vaginal delivery, may be summed up in two principal indications; first, to retard the progress of the presenting portion of the fœtus; second, to direct this fœtal part in its adaptation to the form of the genital canal.

Medical News.

INFECTIOUS PNEUMONIA.—In 1881 Pasteur inoculated rabbits with the saliva of a girl who had died of hydrophobia. This produced a blood poisoning in the rabbits which was designated “*salivary septicæmia*.” It was afterward discovered that the saliva of patients suffering from pneumonia was most liable to produce this septicæmia. Banti of Florence has instituted a series of experiments proving that the salivary septicæmia of Pasteur and the disease produced by the inoculation of the pneumonococcus of Fraenkel were identical. He summarizes the results obtained in the Sept. number of *Lo Sperimentale* as follows :

1. The inoculation of the pneumonic excretion constantly produces salivary septicæmia in rabbits.
2. Among the numerous and varied species of bacteria found in the sputa inoculated into rabbits, one only is diffused through the system and becomes pathogenic.
3. The blood of animals dead with salivary septicæmia is capable of reproducing the same affection on inoculation, and its virulence is not reduced by its passage from one animal to another.

This micro-organism is not constantly found in pneumonia. It is most frequently observed in fibrinous pneumonia and in cases where the pleura as well as the lungs are affected.

DR. ALMANERA BUTLER, of Chili, South America, advocates what he calls *the water diet* in the treatment of cholera infantum. One of the most prominent symptoms of the disease being intense thirst, it was taken for granted that nature pointed out the required treatment. Pure cold water is given in quantities as large as the child desires. Dr. Luton, of Rheims, was the first to advocate this treatment. The following are the principles advocated by him :

1. Stop all food, for this is the probable cause of the disease.
2. Give pure cold water in unlimited quantities. This acts as a tonic to the intestines and increases the volume of blood.
3. Gradually return to a nutritious diet. Starches and sugar should be prohibited until patient has recovered. This treatment will

not interfere with the usual pharmacological remedies Dr. Luton advocates the hypodermic use of morphine and nitrate of silver internally.

TREATMENT OF ACUTE TONSILLITIS.—Dr. John Brown states, in the *British Medical Journal*, that it is a rare event for suppuration to occur in acute tonsillitis, if treated early with the following mixture :

R	Sodii Salicylat.	-	-	-	-	5 iss.
	Potass. bicarb.,	-	-	-	-	5 iss.
	Tinct. Aconit,	-	-	-	-	M xl.
	Liq. Opii Sed.,	-	-	-	-	5 ss.
	Sp. Chloroform,	-	-	-	-	5 ii.
	Aq. Ad.,	-	-	-	-	5 viii. M.

Sig. :—5i-ii every two or three hours for the first thirty-six hours. The same mixture is his sheet anchor in rheumatic fever.—*Med. Age.*

DURING the past summer the infant mortality in New York city increased about fifteen per cent. over that of the summer of 1885, although the city was never in better sanitary condition. This increase in the mortality rates is attributed to the fact that no summer corps of physicians was appointed to visit and prescribe for the sick children of the tenement-house population, as has been the custom heretofore. The Board of Apportionment, having an attack of "economy," refused to appropriate the usual \$10,000 for this purpose, and as a result the city has been obliged to expend about this amount for burial expenses of the poor.

HIGHLY IMPORTANT DISCOVERY.—The London *Lancet* states that Mr. Cresswell Henett has discovered a process by which quinine can be made by synthesis at a cost of three pence an ounce. It was suggested in 1869 by the late Dr. Mattheson of St. Bartholomew Hospital, and Dr. Parker of Netley afterwards rendered aid by his advice, so that the drug can now be manufactured from an article found in any part of the world at little cost by Mr. Henett's process.

WITHIN the past two months, according to *Le Journ. de Med. de Paris*, six more of Pasteur's patients have died of rabies. The most remarkable fact is that several persons bitten by the same dogs as

were those who placed themselves in Pasteur's care, were not attacked with hydrophobia, while some of those treated by him died of the disease. French journals are now wondering whether the fatal cases were derived from the dogs or from Pasteur's virus.

FOR EARACHE.—Moure, in the *Revue d' Otologie*, etc., gives the following mixture :

R	Sulphate of Atropia,	-	-	-	1 part.
	Muriate of Morphia.				2 "
	Neutral Glycerin,	-	-	-	150 "

A few drops to be introduced into the external auditory canal.—

FORCED DILATATION IN THE TREATMENT OF HEMORRHOIDS.—The indications for the employment of forced dilatation are pain and hemorrhage, the operation being an excellent means of combating these accidents of hemorrhoids. It should not be employed in cases of prolapsus without contraction. Dilatation sometimes gives permanent relief, although the disease generally returns, when the operation may be repeated.

AN APPLICATION FOR PRURITUS VULVE.—

Glycerite of Starch,	-	-	-	30 parts.
Zinc Oxide.				6 "
Potassium Bromide,	-	-	-	10 "
Ext. of Indian Hemp.				2 "

Precede the application by a hot hip-bath.—*New York Med. Jour.*

"A MAN who had sore eyes went to a horse doctor for relief. The doctor applied to his eyes an ointment he was accustomed to use on horses. The man became blind, and sued the doctor, but judge acquitted the horse doctor, on the ground that if the man had not been an ass he would never have applied for relief from a horse doctor."—*Ex.*

AN ITALIAN writer has collected from ancient and mediæval literature seventy three cases of entire abstinence from food for periods varying from three days to as many years. There were Tanners and Succis many centuries ago.

A NEW TEST OF MEDICAL COLLEGE STANDING.—The Illionis State Board of Health has resolved to recognize no medical college as of good standing, the aggregate of whose graduates amount to forty-five per cent. of its aggregate matriculates during a period of five years ending with any session subsequent to the session of 1885-6.

A CURE FOR TOOTHACHE FROM DENTAL CARIES.—Dr. V. Gsell-Feltz, of St. Gallen, warmly recommends in toothache from dental caries, the application of cotton-wool soaked in an oily fluid obtained by melting together five parts of camphor, five parts of chloral hydrate and one part of cocaine. Relief is complete and lasting.—*Medical Record*.

DR. T. E. WRIGHT has carefully investigated the question: "When is a man drunk?" and decides as follows: "When consciousness becomes modified, in any degree whatever, through the influence of alcohol, and when, or as long as no exercise of independent nervous force is adequate to restore it to a normal state, the man so affected is drunk."

WARTS.—Dr. D. C. Platt recommends the following application to remove warts:

R	Argenti Nitratis,	-	-	-	-	3 i.	
	Acid-Nitromuriatic,	-	-	-	-	3 i.	M.

Sig.:—Apply once a day.—*New England Med. Monthly*.

CHRONIC BRONCHITIS —

R	Tinct. Cubebæ,	-	-	-	-	3 ss.	
	Tr. Benzoin Co.,	-	-	-	-	3 i.	
	Tr. Cinch Co.,	-	-	-	-	3 iss.	M.

Sig.:—Teaspoonful in water every four hours.

MENTHOL AS A LOCAL ANÆSTHETIC IN NOSE AND THROAT.—Dr. Rosenberg finds that a fifty per cent. alcoholic solution produces anæsthesia in those parts, lasting from twenty to thirty minutes. It is not so complete as cocaine, but is a valuable supplement to the latter drug.—*Berlin Med. Wochenschrift*.

DR. E. BAISRTROCCHI has demonstrated the existence of a lymphatic gland of the heart. The gland is situated where the fold at the beginning of the aorta touches the pulmonary artery. He finds the gland to be constant in many of the lower animals and has observed it five times in the human subject.

PROFESSOR PECHOLIER of Montpellier recommends hot baths and quinine for the abortive treatment of typhoid fever. A homœopathic practitioner accomplishes the same result by giving a drop of *rhus tox.* 3 x., or about 1-1000 of a drop of the tincture every two hours. Take your choice.

ARGENTINE REPUBLIC has established a micro-biological institute to be placed under the supervision of the Medical Faculty of the State University. The object is to be provided with the means for the preventive inoculation for rabies and to make investigations in bacteriology.

DR. W. STRUDWICK, of Hillsboro, N. C., recommends the administration of quinine in enormous doses, 100 grains every hour, for the cure of traumatic tinnitus. He has treated three cases in this manner successfully.

DR. J. E. EMERSON, of Detroit, cures neuralgia, of a rheumatic or malarial origin, with salicylate of cinchonidia in five grain doses, three or four times a day. In rheumatic neuralgia it acts almost as a specific.

VERY wisely the church exhibits its conservative tendencies in the matter of cremation. The Pope has issued a Bull prohibiting Roman Catholics from joining societies advocating cremation.

DR. NIVISON of Burdett, N. Y., reports a case in which the first three fingers, completely severed by an axe, were reunited and the functions perfectly restored.

THE New York Academy of Medicine has received a legacy of \$25,000 from the late Mr. Woerishoffer. Prof. A. Jacobi will formally present the gift.

A MOVEMENT is on foot in Paris to place all the hospitals and asylums now controlled by religious bodies in the hands of the municipal government.

FOR the relief of migraine Dr. Brunton recommends salicylate of soda in two to three-grain doses every quarter or half hour until the pain disappears.

A PENSION of \$1,200 per annum has been granted the widow of Dr. Von Gudden, who lost his life while caring for the insane king of Bavaria.

CONTRIBUTIONS are desired for the relief of the Medical College of South Carolina, whose building was destroyed by the recent earthquake.

TYPHOID FEVER is now more prevalent in Buffalo than it has been for many years or at least since 1881.

A DONATION of \$200,000 has been given to found a homœopathic hospital in Detroit, Mich.

Selections.

RETROVERSION OF THE UTERUS.

From a Clinical Lecture by PROF. PARVIN. Reported in the *N. C. Medical Journal*.

The second patient that I have to show you is a woman aged forty-nine, who has had three children, the last one six years ago; she has had no miscarriages. When I asked her about her history, she says that she has never been well since her first confinement. The second child was born one and a half years after the first, and the third followed the second in one year and five months. So you see she has had three pregnancies, following each other in rapid succession, and she tells us that she has nursed all of her children. She was thirty-two years old when her first child was born, and this fact causes me to speak of her as having been an old primipara. I believe that it is customary in fashionable society never to call a

lady old as long as she is a *miss*, but this rule does not hold good in obstetrics, for at thirty we would say that a woman was an old primapara. Now, in connection to this fact, I want to call your attention to the circumstance that the duration of her first labor was only seven hours, whereas we are accustomed to say that the duration of labor in a primapara is usually twelve hours. She tells us that her chief complaint is pain in the back and in both sides, but most marked on the right. Now, I ask her if any position she may assume will afford relief to this pain in the back, and I want you to listen carefully to her answer, and note it well, for there is something very significant in her reply. She says that when lying down she will frequently stuff a pillow into the small of her back, and that this affords relief. I asked her if any one told her about this procedure, and she answers no, that she just did it of "her own accord." Well, now, you know that instinct will cause a dog to eat grass, under certain circumstances, and so also will instinct often direct the movements of the higher animals, and direct them so correctly that we can often derive a deal of information from these instinctive acts. From this instinctive effort to afford some artificial support to the back, we must needs infer that there is some extreme pressure on the back, and so, in truth, there is, for it is usually in cases of retro-flexion where the uterus is pressing down on the sacrum that we find the women stuffing pillows under their backs. This woman tells us that her menstrual periods are regular, but that she has some discharge, some leucorrhœa, or, as she tersely puts it, the "whites." By-the-way, never ask a patient, even among your most intelligent ones, if she has "leucorrhœa," for if you do she will not understand you, she will think you are talking Sanscrit, or some other dead language, and may possibly give you a misleading reply rather than admit her ignorance of the nature of your query. On the other hand all women know what you mean when you ask them if they have the "whites," and I would therefore advise you to confine yourself to the more homely, but more universally understood term. I find that this case has been put down on the register as one of laceration of the cervix. Well, in a measure, this is correct, there is, no doubt, a laceration, but there must also be some further trouble behind and beside this to account for the symptoms she presents. She has a copious discharge, which really

means that there is a uterine catarrh, and I would here say that I think it is best to call all non-sanguinolent discharges from the uterus uterine catarrh. This is simply a hyper-secretion. I remember years ago, when I was passing through my examination for the degree of M. D. (and I suppose that at this time of the year many of you have peculiar interest in these examinations), one of the professors asked me as to the effect of irritation on secretions. When the irritation is but slight in degree it merely produces an increase of secretion, while when it is more severe it not only causes this increase, but it also produces a perversion of the secretion. In this case the discharge is like the white of egg, from which we infer that it comes from the uterus, for if it was from the vagina it would be more milky in character. A woman with uterine catarrh does not usually have a vaginal leucorrhœa, but let her walk for several squares, and she will find her garments soiled with a discharge that has come from the vagina and has been caused by the irritation of walking. Now, at times this discharge is yellowish and contains pus, which occurs when the grade of irritation is temporarily higher, and, as I have said, as a consequence, the character of the secretion is perverted. The laceration will not account for all the symptoms, and the fact that there is uterine catarrh indicates to us that there is inflammation, or at least congestion of the uterus. If this discharge were thin and watery, then I would say that it came from the cavity of the uterus, but, as it is thick and sticky, we know that it comes from the cervical canal. A still further test of the origin of the discharge could be made up by the use of litmus paper, if it was found to be alkaline, then we should know for sure that it came from the cervix. Well, now, she further complains of this pain, which Dr. Matthews Duncan has so aptly called *Sacralgia*, not a very euphonious, but at the same time a very expressive word. It is a girdle of pain, as it were, starting in the small of the back and passing nearly around the body. Now, this pain means that there is most probably a posterior displacement of the uterus. You know that the utero-sacral ligaments play a very important part in keeping the uterus in its normal position, and while these ligaments maintain their integrity the uterus cannot become displaced, but when, through their relaxation, the fundus of the uterus falls backwards and the cervix is in consequence tilted forwards, there must

be, as you can readily comprehend, a stretching, a tension of these that will cause this pain. But in addition to this sacralgia, there is also pain in front, in the right and the left. How can we account for this? Very readily, by supposing that this uterus is dragging on the round and broad ligaments. When a patient comes to you complaining of such pain you can rest pretty well assured that you have to do with either a prolapsed or a retroverted uterus. Well, then, we have satisfied ourselves that this woman has retroversion. Now, this condition might be overlooked in the laceration. She might go to a doctor, who, discovering the laceration, and supposing it to be the cause of all the trouble, would operate on it. This operation might have the effect of lessening the catarrh, and it would most likely do so, owing to the combined influence of the rest which the operation would entail and the depletion which the escape of blood during the operation would entail, thus reducing the congestion. But in a short time the catarrh would be as bad as ever, because the operation would not radically remove the cause. It will sometimes happen that an operation for laceration of the cervix will cure a retroversion, and that the uterus will hereafter maintain its normal position. This result I would ascribe to the setting up of an inflammation in the utero-sacral ligaments, as a consequence of which they contract, thus drawing the cervix backwards and tilting the fundus forwards. But while this does occasionally occur, yet I would advise you not to count on it, for if you do you will be frequently disappointed. It is not enough merely to operate on the laceration; in fact, I doubt very much whether such an operation would be advisable in this case, where the laceration seems to be producing comparatively so little inconvenience. We will place the woman on her left side and draw the uterus downwards, then draw the cervix backwards and endeavor to keep it in position by a pessary. We will also resort to injections of hot water to reduce the congestion, paint the cervix with Churchill's iodine, and use tampons of glycerine. If the catarrh persists, then we will operate. I speak as I have about the operation for lacerated cervix to put you on your guard, for there are some who seem to think that this operation is a sure cure for all the ills that woman flesh is heir to. Baker-Brown, of England, who was, in his day, one of the greatest of gynecologists grew gradually to believe that all

the troubles of women, of a nervous nature, were due to the clitoris, and he commenced a crusade against this organ. He would preserve the clitoris from all his patients, young or old, married or single, until he had as great a collection of these little organs as the butcher has of similar organs from cattle: he became wild on the subject. As a result he was ignominiously expelled from the Obstetrical Society of London, and died a paralytic, poor and in seclusion. Such cases should warn us against hobby-riding, against allowing any theory, however plausible it may seem, to absorb or reason against considering any operation a panacea. Baker-Brown was disgraced by his one-idea views. I fear that the profession are tending in the same direction now with reference to another organ of the female economy, that is being used to account for all variety of nervous disorders. I have recently read a work wherein the author says that it would seem as though the profession was rapidly growing to regard laparotomy as the panacea of gynaecology, and he says that he believes the day is not far distant when the removal of a sound ovary for the cure of hysteria, epilepsy, insanity and allied diseases will be considered as unjustifiable and as criminal as is clitoridectomy.

DIAGNOSIS OF INFANTILE DISEASES.

1. Congestion of the cheeks in children, excepting in cases of cachexia and chronic disease, indicates an inflammation or a febrile condition.
2. Congestion of the face, ears and forehead, of short duration, strabismus with febrile reaction, oscillation of the iris, irregularity of the pupil, with falling of the upper lips, indicate a cerebral affection.
3. A marked degree of emaciation which progresses gradually, indicates some sub-acute or chronic affection of a grave character.
4. Bulbar hypertrophy of the fingers, and curving of the nails are signs of cyanosis.
5. Hypertrophy of the spongy portion of the bones indicates rachitis.
6. The presence between the eyelids of a thick and purulent secretion from the Meibomian glands may indicate great prostration of the general powers.
7. Passive congestion of the conjunctival vessels indicates approaching death.

8. Long-continued lividity as well as lividity produced by a motion and excitement, the respiration continuing normal, are indices of a fault in the formation of the heart or the great vessels.

9. A temporary lividity indicates the existence of a grave acute disease, especially of the respiratory organs.

10. The absence of tears in children four months old or more suggests a form of disease which will usually be fatal.

11. Piercing and acute cries indicate a severe cerebo-spinal trouble.

12.* Irregular muscular movements, which are partly under the control of the will during the hours when one is awake, indicate the existence of chorea.

13. The contraction of the eyebrows, together with a turning of the head and eyes to avert the light, is a sign of cephalalgia.

14. When the child holds his hand upon his head, or strives to rest the head upon the bosom of his mother or nurse, he may be suffering from ear disease.

15. When the fingers are carried to the mouth, and there is, beside, great agitation apparent, there is probably some abnormal condition of the larynx.

16. The act of scratching or of pinching the nose in children indicates the presence of worms or of some intestinal trouble.

17. When a child turns his head constantly from one side to another, there is a suggestion of some obstruction in the larynx.

18. A hoarse and indistinct voice is suggestive of laryngitis.

19. A feeble and plaintive voice indicates a trouble in the abdominal organs.

20. A slow and intermittent respiration accompanied with sighs, suggests the presence of cerebral disease.

21. If the respiration is intermittent but accelerated, there is capillary bronchitis.

22. If it is superficial and accelerated, there is some inflammatory trouble of the larynx and trachea.

23. A strong and sonorous cough suggests spasmodic croup.

24. A hoarse and rough cough is an indication of true croup.

25. When the cough is clear and distinct, there is bronchitis.

26. When it is suppressed and painful, there is pneumonia and pleurisy.

27. If the cough is convulsive, it indicates whooping cough.

28. Sometimes one sees a dry and painless cough in the course of typhoid and intermittent fever, in the course of difficult dentition, or an attack of worms, under these conditions the cough is often due only to a bronchitis which has been caused by the original disease.—Dr. Bradley, (*L' Union Med. du Canada.*)

THE INFLUENCE OF DRUGS UPON STOMACH DIGESTION.

Klikowitch has performed a series of experiments to ascertain the effect of certain drugs upon the digestive powers of the gastric juice. In order to prepare gastric juice artificially, the author dissolves from five centigrams to a gram of pepsine in an officinal (F. P.) solution of chlorhydric acid, (10 cu. centimetres of acid in a litre of water.) From twenty to forty grams of albumen were added to 450 grams of the artificial gastric juice, and in this solution the preparation of the medicine to be tested was placed. The quantity of peptones was determined by means of the apparatus of Soleil-Wentzke and of Larant. The following is a summary of the results obtained :

1. *Alcohol*.—Peptonization is not influenced by this substance, unless the amount of alcohol in the digestive mixture exceeds five per cent. When ten per cent of alcohol is present, digestion is retarded, and digestion ceases when more than ten per cent. of alcohol is placed in the digestive mixture.

2. *Antipyrine*.—When twenty-five centigrams of this drug are added to two grams of the digestive mixture, the process of peptonization is not affected. A larger dose retards digestion, but not to a very marked extent.

3. *Bromide and Iodide of Potassium*.—In small doses, half a gram, no effect is produced. A dose of one or two grams slightly retards digestion. The iodides retard peptonization to a greater extent than the bromides.

4. *The Salts of Iron*—The salts of the organic acids do not affect digestion; reduced iron and the salts of the inorganic acids arrest peptonization in a remarkable manner.

5. *Calomel* diminishes peptonization, in doses of from three decigrams to a gram.

6. *Arsenate of Soda*.—No injurious effect when the dose is small (from five centigrams to a decigram)—contrary to what we would expect considering the bad reputation of the drug.

7. *Salicylate of Soda*.—Arrests peptonization in a very marked manner in doses of from twenty-five centigrams to five grams.

8. *Sulphate of Soda and Magnesia* even in small doses diminishes peptonization.

9. *Hydrate of Chloral*, in doses of less than one gram, does not influence stomach digestion. A larger dose (from one to five grams) will greatly retard digestion.

10. *Chloride of Sodium* will not affect digestion unless the dose exceeds one gram. In larger doses, peptonization is somewhat retarded.

11. *Chloride of Potassium*.—Same results.—*Bull. Gen. de Therapeutique*.

TWO CASES OF GRANULAR DEGENERATION OF THE
CERVIX UTERI TREATED WITH S. H. KENNE-
DY'S EXTRACT OF PINUS CANADENSIS.

Dr. Gray, F. R. C. P., Edinburg, says: A short time ago I procured from the Rio Chemical Company some of the above drug, and also of the Aletris Cordial. I had at the time two patients under treatment for granular degeneration of the cervix uteri, also known as granular ulcer. The first case, a multipara, aged thirty, had given birth to her first child eight years ago, an interval of seven years without any pregnancy elapsed, owing to leucorrhœa and chronic endometritis, which were cured by the ordinary treatment, occupying however, nearly twelve months. After being cured, pregnancy of her second child occurred: but again, within six weeks after the birth of this child, in November, 1885, the granular degeneration manifested itself, and cervical catarrh, for which I put her upon the usual treatment, iodised phenol, glycerine tampons, douche of water by the syphon uterine douche, etc., but slow progress was made. Still, progress was made. On receipt of the Ext. Pinus, I directed my patient to mix a tablespoonful of it with water and use as a douche for two days. On my next visit, I twisted a bit of cottonwool around a Playfair probe, dipped it in the pure Ext. Pinus, and, after cleansing the mucus from the cervix, applied the probe, charged with the extract to the canal: I then made a tampon and saturated it with the extract and applied it direct to the cervix; in two days removed and applied a fresh tampon saturated as before: then again passed Playfair's probe,

armed as before: afterwards directed my patient to use the extract with the douche. Within fourteen days from the first application every trace of cervical catarrh and erosion had disappeared.

Second Case.—H. G., aged forty, multipara, gave birth to her seventh child in September, 1885: no uterine trouble until December, when I examined her for pains and leucorrhœa: found degeneration of cervix with slight endometritis and hyperæmia of cervix: applied tampons saturated with glycerine: gave her ergot and cinchona, etc.; used the douche for some time, but without any pronounced benefit. I applied S. H. Kennedy's Extract of *Pinus Canadensis*, as in former case. In addition, I gave her the Aletris Cordial on account of the thickened hyperæmic state of the cervix, and, in the course of ten days, she was completely cured by these remedies. I think in *Pinus Canadensis* we have a good astringent, with special healing properties for the uterus. The Aletris Cordial certainly seems to act as a uterine alterative and tonic.—*Medical Press.*

THE DIAGNOSIS OF ORGANIC HEART TROUBLES.

By EMORY LANPHEAR, KANSAS CITY, MO.

There are no problems of physical diagnosis which so puzzle the average practitioner as differentiating between, and recognizing the significance of, the murmurs present in organic diseases of the heart.

It is quite evident that proper therapeutic agents cannot be employed until an exact knowledge of the conditions present in any particular case can be obtained by the attending physician. In most cardiac affections attended by organic change there are distinct murmurs discoverable, and it is only by a proper understanding of these morbid sounds that an accurate diagnosis can be made. Therefore, any guide to their meaning must be acceptable to the majority of the medical profession. To those who hear, but fail to appreciate the precise meaning of these sounds, the subjoined table will prove invaluable.

I am indebted to my friend, Prof. A. B. Shaw, of St. Louis, for this table, he having presented it to the class at the Missouri Medical College in the spring of 1879. Many complex tables have been given to the profession, but this is probably the best, combining, as it does, simplicity with easiness of remembrance, yet comprising all that is needed in making a stethoscopic examination of the heart, stating

perfectly the time and location of the murmur, thus indicating what the lesion is, and where it is located. I submit it to the readers of this article, trusting it may prove of as much benefit to them as it has to me:

TABLE OF CARDIAC MURMURS.

WHERE HEARD.	TIME OF MURMUR.	SIGNIFICANCE.
Apex.	Systolic.	Mitral Regurgitation.
	Pre-Systolic.	Mitral Obstruction or Direct Mitral.
Base of Heart and Ascending Aorta.	Systolic.	Aortic Obstruction or Direct Aortic.
	Diastolic.	Aortic Regurgitation.
Base of Heart, conducted toward Ensiform Cartilage.	Diastolic.	Aortic Regurgitation.
Base, conjoined with Jugular Pulsation.	Systolic.	Tricuspid Regurgitation.
Region of Pulmonary Artery.	Systolic.	Pulmonary Obstruction.
	Diastolic.	Pulmonary Regurgitation.

Pages might be written explanatory of this table: in fact, it covers the whole subject of the diagnosis of organic diseases of the heart. With it, all that is necessary is a knowledge of the topographical anatomy of the precordial region: the location of various structures mentioned being known, and the several murmurs being heard, all that remains is to distinguish between systolic and diastolic sounds, and the diagnosis is accomplished. Without some such table in one's mind, it is impossible to intelligently examine a chest for cardiac trouble.—*Kansas City Medical Index.*

A SPECIFIC FOR SCARLET FEVER AND DIPHTHERIA.

Dr. C. R. Illingworth, writes thus to the *Med. Press and Circular*: I find that the biniodide of mercury is a specific and prophylactic for scarlet fever and diphtheria.

Both are diseases due to the development of germs in the blood, myriads of minute nucleated bodies in active movement being visible by the microscope on examination of the membrane peculiar to each. Hence, I think, the efficacy of the remedy I name.

As all diseases of this nature deprive the blood of a large portion of its hæmoglobin and fibrin, I prescribe the ammonio-citrate of iron with it. Thus:

R ^x	Sol. Hydrarg. Bichlor.,	-	-	-	3 iij.
	Potass. Iodid,	-	-	-	gr. x.
	Ferri am. Citrat,	-	-	-	gr. xx.
	Syrupi,	-	-	-	℥ ss.
	Aquam ad,	-	-	-	℥ ij.

et solve. fiat. mist.

Sig:—One teaspoonful every two hours (for a child of two to four years.)

As soon as all the membranous deposit has disappeared from the parts affected I give the usual steel and chlorate of potash mixture. As a rule this occurs in from four to five days, but in severe cases it takes ten.

The only and important exception to this rule of treatment is in those cases where the disease is ushered in with vomiting and purging, with scanty rash and collapse. In these, which evidence a rapid liquefaction of the blood by the action of the poison, the iron and chlorate of potash mixture should be given at once in full doses every two hours.

THE PROPER USE OF ANTIPYRINE.

Pavay has employed this drug in a large number of cases, and gives some useful rules for its administration. He adopts a middle course in regard to dosage. When the temperature does not exceed 103° F., he divides 31 grains into three powders and administers one powder every half hour. If the thermometer registers 104°, three doses are given, as before, each dose consisting of 15½ grains. With a temperature of 105° and above, he gives 62 grains in four doses, half an hour apart. It is seldom, the writer asserts, that the temperature fails to fall from 2-4°, and to remain lowered from six to sixteen hours. If for any reason the stomach will not retain the drug, it may be given by the rectum in doses of from 30-45 grains, or hypodermically in a fifty per cent. solution.—*New York Med. Jour.* Sept. 1886.

*THE USE AND VALUE OF MURIATE OF PILOCARPIN
IN DIPHTHERIA.*

Dr. W. K. Harris, in the *Kansas City Medical Index*, details his experience with muriate of pilocarpin in the treatment of Diphtheria, having been many times successful with the formula of Guttman of Cronstadt, which is as follows :

℞	Pilocarpin. Muriatis,	-	-	$\frac{1}{3}$ to $\frac{2}{3}$ grs.
	Acid Hydrochloric,	-	-	gtt ij to v.
	Pepsin,	-	-	grs. i to iss.
	Aquæ Distillat,	-	-	℥ ijss. M.

Sig :—Teaspoonful to a child two years old, every hour.

While the pilocarpin is the principle remedy, there are useful adjuvants, of which calomel, from its well-known property of preventing inflammation and plastic exudation, holds first rank. This, with a solution of potassa chlorate as a gargle, is often enough to control the fetor.

If the patient be too young to use gargle, have the attendant give from one half to one teaspoonful by the mouth every hour or two.

The calomel should be given in from three to six-grain doses, every two to three hours, discontinuing it when the dark green discharges show the full effect of the mercury in the bowels.

Apropos of Mercury.—By directing the attendants to withhold all acid drinks, and have the patient click or snap his teeth together, and stop the exhibition of the calomel when he complains of a feeling of soreness or tenderness in the teeth, you need have no fear of creating ptyalism.

Dr. Guttman, in his report, says: "The action of pilocarpin is purely local, preventing the development of the membrane and organisms on which the disease is presumed to depend, dissolving and carrying them away by the excessive flow of saliva and mucous secretion."

We cannot coincide with the views of Dr. Guttman as to its being a purely local remedy. First, the diaphoresis which ensues almost immediately. Second, the decline in temperature and volume of pulse: still later, decrease in number of pulse-beats to the minute; and, if given in too large doses or pushed too closely, causing nausea and vomiting (simulating the effects of veratrum viride in large doses.) Sweating follows its exhibition in from fifteen to thirty minutes; the

increased expectoration in an hour or so ; and the fall in temperature, as shown by the thermometer, in from six to twelve hours, not to rise again during the course of the disease.

Its use is followed by excessive secretion from the mucous membrane of the throat and fauces melting and dissolving the patches of diphtheritic membrane which disappear and are carried away by the profuse flow of saliva in from thirty-six to forty-eight hours. Some small lingering patches may be discovered after that time. In only one case did the membrane continue longer and in only one case was it reproduced after once disappearing.

THE FUNCTIONS OF THE MEMBRANA TYMPANI ILLUSTRATED BY DISEASE.

Sir William Dalby, in a brief but instructive article in the July issue of *The American Journal of the Medical Sciences*, points out that our knowledge of the functions of the membrana tympani may be added to by the observation of this structure when it becomes altered by disease. He points out that structural changes in the tympanic membrane, as, for instance, extensive calcareous deposit of a very extensive nature may exist without impairment of hearing. The history of cases in which there have been such deposits, with diminution of hearing shows that the patients have at some previous period suffered from inflammation within the tympanic cavity, so that the changes then wrought will sufficiently account for the failure in hearing. That the position of the obstacle to hearing is in the conducting media, and, therefore, in the tympanic cavity, and not in the nervous structure can be, in such cases, readily demonstrated by experiments with the tuning-fork.

Loss of continuity in tympanic membrane, he also shows, does not necessarily interfere with its function, provided that the ligamentous support which it affords to the chain of ossicles is not impaired.

In several instances in which the membrane has been accidentally pierced with a very sharp-pointed object, as a pin, the hearing has not been found, with the most careful tests, to be injured. In these examples the healing process occupied from three to four days.

In one case, when a sudden explosion near the ear ruptured the membrane in two places, the hearing was perfect, and the ruptures healed in a few days. On comparing the notes of other cases in which

the hearing was impaired by explosions, it was found that the hearing suffered more injury when the membrane was not ruptured than when it was. It would also seem from this that the force of the explosion expended itself, partially, in rupturing the membrane, and so, in a measure, some hearing was saved. At any rate, it appears not an unfair conclusion that the loss of hearing must be due, in all cases, to damage to the nervous structures; in other words, to what, for want of a more accurate term, must be called shock.

That the loss of continuity in the tympanic membrane does not of itself interfere with its functions is still further shown by the careful and continual observation of cases in which the membrane is perforated by incision or by disease, and the author thinks that the loss of hearing is due to causes which do not include this loss of continuity in the tympanic membrane.

YELLOW FEVER: ITS TRANSMISSION BY THE CULEX MOSQUITO.

Dr. Charles Finlay, of Havana, maintains, in an article which appears in the October issue of *The American Journal of the Medical Sciences*, that yellow fever is not spontaneously transmissible by infection through the air by contact, but that it may be artificially communicated by inoculation, and only becomes epidemic when such inoculations can be verified by some external natural agent, such as the mosquito.

The history and etiology of yellow fever exclude from our consideration, as possible agents of transmission, other blood-sucking insects, such as fleas, etc., the habits and geographical distribution of which in no wise agree with the course of that disease: whereas, a careful study of the habits and natural history of the mosquito shows a remarkable agreement with the circumstances that favor or impede the transmission of yellow fever. So far as Dr. Finlay's information goes, this disease appears incapable of propagation wherever tropical mosquitos do not or are not likely to exist, ceasing to be epidemic at the same limits of temperature and altitude which are incompatible with the functional activity of those insects; while, on the other hand, it spreads rapidly wherever they abound. From these considerations, taken in connection with his successful attempts in producing experimental yellow fever by means of the mosquito's sting, it is to be

inferred that these insects are the habitual agents of its transmission. It cannot be denied, however, that other such agents may and probably do occasionally occur, but not being endowed with the same facilities for rapid and extensive operation, their influence becomes insignificant with the action of the Cuban culex.

ANTISEPTIC TREATMENT OF CROUP.

The following is a plan of treatment recommended by M. Renon (*Journal de Med. de Paris*): The patient is placed in a well-ventilated room of medium size, the temperature of which is maintained at from 68° to 75° F. Upon an oil-stove is kept a vessel, of a capacity of two quarts, in which the water is constantly boiling. Into this put, every three hours, a tablespoonful of a mixture of salicylic acid, 56 parts; benzoic acid, 112 parts; carbolic acid, 280 parts, and alcohol, 468 parts. The stove is placed near the bed, and the steam impregnated with this mixture is conducted, by means of suitably arranged curtains, to the patient. The patient is kept in this atmosphere until the symptoms have entirely disappeared, and for two or three days after; and, if tracheotomy has been performed, until the wound is closed. A close watch should be maintained over the case, and if any symptoms of poisoning are manifested, the quantity of carbolic acid should be diminished.

OXYGEN IN LEUCÆMIA AND PSEUDO LEUCÆMIA.

M. Kinberger, in *Nouveaux Remèdes*, relates the particulars of a case in which, arsenic having failed, the inhalations of oxygen brought about a rapid increase of strength with diminution of the hypertrophy of the spleen; at the same time the number of white globules were increasing and the red were returning to the normal proportion. At the expiration of several months the disease reappeared, but although the number of red globules had diminished those of the white were not increased. The inhalations of oxygen had effected a complete cure.

SALICYLATE OF LITHIA IN THE TREATMENT OF RHEUMATISM.

M. Vulpian has observed that the salicylate of soda, although very efficacious in the treatment of acute articular rheumatism and acute

attacks of gout, has often no influence upon gonorrhœal rheumatism, and very little upon subacute and chronic articular rheumatism.

On the other hand, in these latter affections, salicylate of lithia appears to have beneficial effect. It acts as a special salt, not only as lithia, or its acid, or its salicylic acid considered alone; the proof of this is that lithia as a carbonate has not produced any good results in the same cases, nor has salicylic acid given as the salicylate of soda. When an acute rheumatism treated by the latter substance has become chronic, it resists its action completely, then good results are obtained by substituting, in the same doses, the salicylate of lithia. Vulpian prescribes it in doses of a drachm and more a day. In larger doses it produces often painful diarrhœa: causes a deafness which does not last.—*Gaz. des hôp.*, Dec. 10, 1885.

Editorial.

THEORY, PROGNOSIS AND TREATMENT OF EPILEPSY.

In 1881, Dr. Gowers, of London, published a most remarkable and comprehensive treatise on epilepsy; he reviewed at considerable length, the various theories of epilepsy, and arrived at the conclusion that the theory of Hughlings-Jackson was the only one which could explain the phenomena of epilepsy. This theory has but few adherents at the present time, and one need but hear a discussion on this subject to see how little understood it still is.

This is greatly to be regretted, for, based on it, we have a plan of treatment which has proven of inestimable value to the profession, and has taken epilepsy from among the utterly hopeless diseases and placed it among the curable. Gowers demonstrated, by the treatment of a great many cases, that this was correct.

It has been substantiated by many who have given it diligent study and carefully followed the most minute directions.

The theory of Hughlings-Jackson is that of a discharging lesion of the cells of the gray matter of the brain. That it is

“in most cases within the cerebral hemispheres, probably often in the cerebral cortex although possibly, in some instances lower down and may be even in the medulla.” “What is the nature of this tissue change? Can we form any opinion as to the character of the alteration in the gray matter which permits its sudden discharge? It is answered in the following language: ‘In the construction of a motor nerve center, it is requisite to create an apparatus which is always ready to evolve force, but which shall not do so spontaneously without the application of a stimulus of some kind or other, either physical or mental. The peculiarity of nerve cells is that they possess two qualities: They prepare material which, by undergoing oxidation, generates force, and yet they can prevent this material from so acting, although blood is circulating all round it charged with oxygen. In states of spasm this property of the nerve cell is lost or much impaired, and the discharge of highly unstable cells leads to the discharge of healthy cells in other centers, with which there is an anatomical connection by fibres. The discharging lesion may be likened to a fulminate which overcomes the resistance of less unstable compounds. The nerve cells are likened to so many Leyden jars, which generate the electricity. Thus the explosion is due to a sudden diminution of resistance by which the pent-up nerve force is released, thus causing the epileptic phenomena.’ ”

Enough as to the theory; as to prognosis we find that it “involves several separate questions: (1) The danger to life, (2) the prospect of a spontaneous termination of the disease, (3) the prospect that by treatment the disease may be (a) cured, or (b) the attacks arrested.” We might add a 4th; the prospect of arresting mental decay, where we do not completely arrest the attacks. As to the first we find there is such a slight danger to life that we will not take the space to discuss it; 2d, the spontaneous termination of the disease; but few cases terminate spontaneously and these are usually patients under five years of age. They frequently suffer from the trouble in later life, and are not so apt to be free from it as

those who are relieved by treatment, and that the mental impairment is far greater. As to "*the probability of cure or arrest by treatment*," the only method of cure is by obtaining arrest of the fits for a considerable time." The indications of the prognosis has been materially changed by the introduction of the bromides as remedies for epilepsy. Not only do they arrest fits far more frequently than any other remedy, but they are effective in many cases, which, according to experience, previous to the introduction of these remedies, would have been regarded as most unpromising. As to age it was advanced by Gowers that "the proportion of the cases commencing under twenty, in which arrest was obtained, is considerably less than the proportion of cases commencing over twenty. The difference amounting to about 13 per cent." As to duration before treatment was instituted, "the result is in agreement with the conclusions of all writers on the subject, that the prognosis is favorable in inverse proportion to the duration of the disease." While this is undoubtedly true, we must not allow it to interfere with our plan, or influence us in treating the disease. A case of twelve year's standing, well known to the writer, was relieved in four months, and after two years the attacks have not returned. Many other cases of similar character could be cited.

Heredity plays but a small, if any, part in rendering the prognosis less favorable. We see then that many cases are completely cured; that no class of cases can be called unpromising, unless there be complete or partial dementia; indicative of brain change having taken place.

As to the fourth, we find that the mental decay, so often seen in this disease, does not follow in cases treated from time to time by the use of the bromides, or where patients take moderate doses of this drug, even if the attacks be not completely arrested.

As to the treatment, we must pay particular attention to the general condition of our patient. In many cases it being of great service to precede the use of the bromides by tonics, being care-

ful in all cases to relieve constipation, and, so far as in our power, to improve the condition of the digestive tract. When the bromides are given to bring our patient rapidly under its influence, producing within a week, or a comparatively short time, slight bromism, to then reduce the remedy to the minimum doses. The usual amount required being $\mathfrak{z}\text{i.}$ to $\mathfrak{z}\text{ii.}$ of the drug daily, giving it in four divided doses, taking care to administer one dose during the night. The drug should never be suspended; should be continued for fourteen to eighteen months after the cessation of the attacks. In many cases the combination of the three bromides of ammonium, potassium and sodium will act more kindly than any one alone. By far the most useful of any single bromide is the bromide of potassium.

Many drugs do great good, if associated with the bromides and chief among these is the iodide of potassium. Where syphilis is suspected it is of course necessary, but where it is not, many cases have undoubtedly been greatly benefitted by its use, Dr. Salter, in speaking of its great utility in the treatment of various neuroses says: "Of its ultimate and exact *modus operandi*, I can neither offer an explanation, nor form any reasonable opinion." It should be given in small doses and continued for months. We will find ergot of great service in many cases. Digitalis, iron, belladonna, all have their place as associate drugs. We must even keep in mind the proper regulation of the diet. We must place our patient under the best hygienic conditions, to accomplish this we will frequently find it necessary to send our patients to a hospital, putting them under the strictest orders, as to diet, exercise and regular habits. There are many cases that could be reported to illustrate this point. Thus it is to be hoped the day is not far distant when a hospital, both public and private, will be established to assist in the treatment of proper cases. As to many other remedies suggested and used we will find the following of value:

"Dr. C. L. Dana, has written a paper, which is published in a recent number of the *New York Medical Journal*. His

conclusions are summarized in the following statements:—

“ I. Diet, exercise and proper hygienic treatment rank above all other single therapeutic measures.

“ II. The bromides take the second rank in the treatment of epilepsy.

“ All bromides act alike in this disease. If one does not cure another will not. Occasionally changing and mixing reduces the attacks for a time, and benefits the stomach.

“ III. The best bromides are those of potassium, sodium, ammonium, and hydrogen (hydrobromic acid); possibly we may add nickel.

“ IV. Bromides may be given in daily doses of $\mathfrak{5j}$, increased gradually until the attacks are suppressed, or the dose reaches $\mathfrak{5iv}$ to $\mathfrak{5j}$ daily. Few patients can tolerate more than this latter dose. Thorough bromidization should be always tried, if necessary to stop fits, and it may be occasionally repeated; but bromidization is sometimes injurious, even making the disease worse, and it must always be employed with caution.

“ V. When the fits are suppressed, the bromides should be carefully reduced, but never entirely stopped for at least two years after the last fit.

“ VI. In most cases, and especially in nocturnal epilepsy, an extra large dose of bromide should be given at night.

“ VII. It is very important that bromides should be chemically pure, that their use should be continued a very long time, and that their depressing effects should be offset by tonics and all possible roborant measures.

“ VIII. The best non-specific adjuvants (drugs) to the bromides are potassium iodide, (in syphilitic epilepsy,) potassium bicarbonate, (in lithæmic and rheumatic states), carbonate of ammonium, the hypophosphites, arsenic, iron and quinine

“ IX. The other chief adjuvants to the bromides are diet, exercise, a regular life, hydrotheraphy, counter-irritation on the neck, and, in the line of drugs, zinc, belladonna, strychnine, valerian and the nitres. Combinations of bromides with the other drugs mentioned will lessen attacks when bromides alone will not.

"X. The best substitutes for the bromides, when these do no good or do harm, are belladonna, zinc, strychnine, glonoin, borax and alteratives.

"For nocturnal epilepsy, increase the dose of bromide at night, and add chloral or digitalis. Give also, if needed, strychnine. Raising the head of the bed or making the patient sleep in a chair at night are measures to be tried.

"For the status epilepticus give large enemata of chloral, and use emetics and purges. Venesection is often efficacious, morphine is dangerous, chloroform is only palliative, and nitrite of amyl is of little value."—*Boston Medical and Surgical Journal*.

NEW YORK STATE MEDICAL ASSOCIATION.

This association will hold its third annual meeting Nov. 16th, 17th and 18th, at Lyric Hall, Sixth ave. between Forty-first and Forty-second street, New York City. The two former meetings have been of great scientific value, and the source of pleasure and profit to all who have attended. The programme for this year is just out and is almost up to those of past years, although we must confess there is a certain disappointment in the papers to be presented by New York men. From abroad, however, and especially from Western New York, there appear the names of those who will do the association credit. Among those from other states we notice the names of Prof. Charles T. Parkes of Chicago, Dr. Chas. B. Nancrede of Pennsylvania, Dr. J. B. Hamilton, Surgeon-General of the Marine Hospital service and Prof. James Tyson, of Philadelphia, who will discuss the paper of William Lusk, on Eclampsia. Among those from Western New York we find the names of Prof. J. B. Andrews of Buffalo, who will report an interesting case of the Morphine and Cocaine habit. Prof. W. S. Tremaine will read a paper on "Gun Shot Wounds of the Abdomen." One of the features of the second day, morning session, will be an address on Forensic medicine, by Prof. Simeon T. Clark, of the Niagara University, the orator of Western New York.

Prof. John Cronyn, of Niagara University, will discuss the

paper of Henry D. Didama on Pulmonary Tuberculosis. Prof. Alvin A. Hubbell will read a paper on Congenital Stenosis of the nose. On the third day Prof. Chas. G. Stockton will deliver the address, taking for his subject Therapeutics. Papers will also be read by Drs. Moore and Honey, of Rochester. Those intending to read papers, who have not already notified the committee should do so at once, by addressing Dr. E. D. Ferguson, Troy, N. Y.

Reviews.

Paralysis—Cerebral, Bulbar and Spinal. A Manual of Diagnosis for Students and Practitioners. By H. CHARLTON BASTIAN, M. A., M. D., F. R. S., Fellow of the Royal College of Physicians; Examiner in Medicine, at the Royal College of Physicians; Professor of Clinical Medicine and of Pathological Anatomy, in University College, London, Physician to University College Hospital and to National Hospital for Paralyzed and Epileptics; Crown Referee in cases of supposed Insanity; with numerous illustrations. New York: D. Appleton & Company, 13 and 5 Bond St. 1886.

This work is designed to facilitate diagnosis of the various forms of paralysis. How great was the need for just such a work every student and practitioner well knows. There is no subject concerning which there is so little knowledge, among the general practitioners, as this. The various forms of paralysis from brain disease, from disease of the bulb and from disease of the spinal cord are now so numerous, and many recent additions have been made to our knowledge in these directions, that some such aid to diagnosis may well be looked for by those for whom this work is intended. There is a chapter on Paralysis of Encephalic, spinal, peripheric, origin which adds much to the work and gives one a clear idea of the various forms to start with. At the head of many of the chapters a review of the physiology and anatomy of the various parts is to be found, which greatly aids in understanding the pathological condition. "The signs of paralysis of the different cranial nerves have been pretty fully dealt with, because the recognition of such paralysis is often a matter of the greatest importance. Concerning the importance of arriving at a correct diagnosis it is needless to dilate." The book supplies a want long felt; to come from this celebrated author makes it much more valuable.

Diseases of the Stomach and Intestines. A Manual of Clinical Therapeutics, for the student and Practitioner. By PROF. DUJARDIN-BEAUMETZ, Physician to the Cochin Hospital, etc., etc. Translated from the fourth French edition by E. P. Hurd, M. D.; with illustrations and one chromo lithograph. New York: Wm Wood & Co.

The late issues of "Wood's Library" have been exceptionally valuable. Those of our readers who are not subscribers we would urge to send in their names. They cannot make a better investment of the same amount of money. This volume of Prof. Dujardin-Beaumetz is devoted especially to the *Treatment* of diseases of the stomach and intestines, and recognizing that the administration of drugs is secondary; he devotes much attention to food and alimentation in these diseases. The book is full of valuable instruction, which cannot be otherwise had in the present compact and easily referred to form.

A Treatise of Electrolysis and its application to Therapeutical and Surgical Treatment in Disease. By ROBERT AMORY, A M., M. D., Professor of Physiology in Bowdoin College. New York: Wm. Wood & Co. 1886.

This volume presents to the profession, in a condensed form, that knowledge of electricity necessary for the intelligent employment of this force in medicine. It defines its limits of therapeutical application, so that the physician may know how to apply electricity to the human structure in a rational way, and to withhold its application in these cases of diseased tissues which are not amenable to its favorable action. The book can be read with advantage by every one who uses electricity in his practice—and in this day who does not?

The Medical News Visiting List for 1887. Philadelphia: Lea Brothers & Co.

Of the many visiting lists for the ensuing year, which will soon be issued, this is the first to reach us. We give it immediate notice because we think we will be doing our readers a service by advising them to examine the "Medical News" list before purchasing any other. It is very handsomely gotten up. The arrangement of its pages is, the writer thinks, excellent, but upon this point almost every physician has settled views of his own, dependent largely upon the particular style he has been in the habit of using. In our own opinion this is the most convenient, and altogether, the handsomest visiting list published.



VOL. XXVI.

DECEMBER, 1886.

No. 5

Original Communications.

*CONGENITAL OCCLUSION OF THE POSTERIOR NARES.**

BY ALVIN A. HUBBELL, M. D., BUFFALO, N. Y.

Professor of Diseases of the Eye, Ear, and Throat in the Medical Department of Niagara University.

Because of the rare occurrence of congenital occlusion of the posterior nares (choanæ), I have been constrained to place upon record a case of this interesting deformity which I have had the opportunity of observing and treating, and also to accompany the report with brief notes of such other cases as I have been able to find in surgical literature.

On September 1st, 1883, G. R. M., a young man, eighteen years of age, was brought to me by Dr. L. W. Tarbox, of South Dayton, N. Y. He gave me the following history: He was the tenth child of a family of eleven children, all of the rest of whom were well-formed and generally free from any physical defects, excepting that two sisters had obstruction of one nostril from "vomer bone growing to one side." Soon after birth, it was noticed that he could not breathe through his nose. It was impossible for him to suckle, and, while very young, much trou-

* Read before the New York State Medical Association, in New York, Nov. 17, 1886.

ble was experienced in keeping his mouth open so that he could breathe through it, especially when asleep. He was a vigorous baby, and, notwithstanding this drawback in respiration, he thrived well and grew rapidly. As he became older, his sleep was less disturbed by difficult breathing, the greatest annoyance then experienced arising from the lips, mouth, and throat becoming very dry. He had never had any sickness, excepting an attack of croup when he was three years old.

At this consultation he was a strong, well-developed young man, somewhat short in stature, and weighing about 160 pounds. He breathed entirely through the mouth, being obliged to keep it more or less open for this purpose, thus giving him an unpleasant facial expression. His words were spoken with an entire absence of the nasal sounds. He said it was "harder for me (him) than others to drink, swallow, or chew food." Taste was good. The sense of smell was "very weak," if he could "smell at all." Mucus discharged freely from the nose, and was a source of much annoyance to him. His hearing was acute, and he has never had disturbances of any kind in his ears. The membranæ tympani were normal in appearance, and the Eustachian tubes were freely permeable, permitting easy inflation of the tympanic cavity. The nose was quite large and its cavities, anteriorly, were of normal shape and full size. The mucous membrane, however, lining these cavities was more or less swollen and congested. The inferior meatus on either side was large, and extended backward to a depth of five centimetres (one and a half inches), when an obstruction was met which was firm and complete. An examination of the posterior nares, with the index finger passed behind and above the palate, showed a well-marked, somewhat conical depression on each side, about six millimetres (one-fourth of an inch) deep. The posterior border of the vomer was prominent, and distinctly separated the two depressions. A rhinoscopic examination was not practicable.

To determine the character of the obstructing partition and the line of treatment to be pursued, I passed a medium-sized trocar through the one on the left side. I found

the occlusion to be a thin, bony plate, covered on both sides with mucous membrane. It was penetrated without much force by giving the instrument a drilling or rotatory movement. Having thus determined the character of the obstruction, it was deemed best to make as large an opening as possible by means of a drill as large as the inferior meatus in front would admit.

The patient was admitted to the Buffalo Hospital of the Sisters of Charity, and the operation was made Sept. 21st, with the assistance of Dr. Tarbox and residents Murphy and Hill. The patient was anæsthetized with chloroform, and with a hand-drill having a diameter of thirteen millimetres (over one-half inch), and with edges well sharpened, each partition wall was carefully penetrated by rotatory movements of the instrument, and free openings made. There was considerable hemorrhage, but this soon ceased. Breathing through both sides of the nose took place at once, and was free and easy. After recovery from the anæsthetic, the patient expressed himself as feeling a sense of comfort which he had never known before. He was kept in bed a day or two, and the nose was cleansed with carbolized water. To keep the openings sufficiently large and free, sounds and tents were afterwards introduced regularly twice a day. The patient was discharged September 29th, with nasal respiration easy, both when awake and asleep.

November 17th, the patient returned to me with the openings so much contracted, notwithstanding the efforts to keep them large, that breathing through them was somewhat difficult, and it was necessary for him, during a part of the time, to breathe through the mouth. I decided to repeat the previous operation and endeavor to keep the openings of sufficient capacity by inserting as large-sized tubes as possible, and retaining them till the healing process was nearly or quite complete. I had tubes of "block tin" made of two sizes from which to choose, the diameter of one size being ten millimetres (less than one-half inch), that of the other thirteen millimetres (more than one-half inch), and their length five centimetres (two inches). The patient having been placed in the hospital as before, he was again

anæsthetized with chloroform, when I proceeded to repeat the previous operation with the drill, my colleague, Dr. John Crobyn, and Drs. Tarbox, Hill and Murphy kindly assisting. After the hemorrhage from the operation had ceased, the parts were cleansed with carbolized water, and an attempt was made to introduce the larger tubes. These were found to be too large to be safely used, on account of their making severe pressure on the vomer, alæ, inferior turbinated bones, and surrounding parts. The smaller tubes were, therefore, introduced, and proved to be of ample size for the parts without making undue pressure at any point. When in place, they were almost entirely hidden from view, and posteriorly they projected to a plane corresponding with that of the posterior margin of the vomer. Previous to their introduction, a small cord was inserted into a hole in the anterior extremity of each tube to facilitate removal. This, when not in use, was placed within the tube out of sight. The patient breathed easily through the tubes, and he was permitted to leave the city November 24th, with directions to cleanse the parts as effectually as possible, and as frequently as seemed necessary, with carbolized water.

On December 28th, about six weeks after the operation, the tube in the right nostril was accidentally withdrawn by the patient, and on January 5th, 1884, about seven weeks after the operation, I removed the one in the left side. Both tubes were held in place quite firmly at first, but afterward were loosened, and came away easily. After removal of the tubes, the openings through the obstructing partition were found almost entirely healed, and they were fully as large as the diameter of the tubes. The case has been seen recently, and, although the openings have contracted some, the space is sufficient for free nasal respiration.

After the operation, the patient could not at first properly regulate the action of the palate in speech, so as to cut off certain sounds that should not pass through the nose, and his articulation was, therefore, too nasal. In a short time, however, he so educated the palatal muscles as to be able to give the sounds of the vowels and of such consonants as g, k, b, etc. The acts of

mastication and swallowing were accomplished with ease, the mouth was kept closed as in other persons, and the facial expression was changed so as to appear perfectly normal. The sense of smell had not improved, but the anosmia continued complete, indicating, undoubtedly, a want of development of the olfactory nerve.

A point worthy of emphasis is the fact that there had never been any disturbance of hearing, and the Eustachian tubes, tympanic cavities, and membranæ tympani were normal in all respects, although the conditions of Toynbee's experiment were constantly present. As is well known, this experiment consists in tightly closing the nostrils, when continued acts of swallowing will exhaust the air within the tympanic cavities to the extent of materially disturbing the equilibrium of atmospheric pressure between the middle and external ear, and thus inducing changes, observable by the surgeon, and felt, even to a distressing degree, by the patient.

A careful examination of medical literature shows but few reported cases of congenital stenosis of the choanæ. The first reference that I can find made to this condition was by Adolph Wilhelm Otto, M. D.,* of Breslau, in 1831, who said: "In congenital closure of the hinder opening of the nostrils, the palatine bones are very much deformed." Otto thus implies that such cases had been seen, but he does not cite any.

Karl Emmert† was the first to record a case which came under his observation in 1851. The patient was a boy seven years old who had been unable to breathe through the nose from birth. He had been nourished with great difficulty during infancy, and often had suffocative attacks during sleep. Both choanæ were entirely closed, and mucus and tears were constantly discharging from the nose, and the sense of smell was wanting. The occlusion was found, both by preliminary examination and by operation, to be bony, but it was impossible to ascertain in what manner, or from which bones the partition wall arose.

* *Compendium of Human and Comparative Pathological Anatomy*, Translated by John F. South, London, 1831, p. 181.

† *Lehrbuch der Chirurgie*, Stuttgart, 1853, Bd. II., S. 355.

Emmert penetrated the obstructions with a specially constructed trocar, and enlarged the openings by the introduction of a catheter. Tubes were also introduced, and worn at times for half a year. The father of this boy had had syphilitic disease of the pharynx.

The next record was made by Luschka,* in 1859. He describes the case of a female infant who died shortly after birth, in whom both posterior nares were occluded, and in whom, also, many other deformities existed. A post-mortem examination showed that the occlusion on each side was a bony plate which extended from the palate bone, upwards and backwards, to the lower surface of the sphenoid. Laterally, each plate reached to the inner side of the internal plate of the pterygoid process, while in the median line they approached each other, being separated by a narrow slit which received the posterior extremity of the rudimentary vomer, and were united below where the posterior nasal spine usually arises from the palate bones.

R. Voltolini,† in 1871, gives the history of a medical student who suffered with closure of the right choana, which was apparently membranous, and due to "congenital adhesions." It was successfully opened by means of the galvano-cautery.

Fraenkel‡ mentions a case sent to him by Dr. J. Wolff, in which there was a bony closure of the posterior nares on the right side. The patient was a young man "who had been unable to blow his right nostril," and "had been excessively troubled by the accumulations sometimes escaping in front." Wolff had established the diagnosis by means of palpation of the pharynx and probing the nasal canal, and had perforated the bony partition-wall by "an operation." Fraenkel satisfied himself that the obstruction was a "smooth and solid wall, covered on both sides with mucous membrane, and closing the right fossa in precisely the same manner described by Luschka. The crista of the septum showed itself, even on the closed side, as a narrow strip.

*Arch. f. Path. Anat., XVIII., 1859; also *der Schlundkopf des Menschen*, Tübingen, 1868, S. 27.

†Die Anwendung des Galvanokaustik im Innern des Kehlkopfes und Schlundkopfes, Wein, 11. Aufl., 1871, S. 260.

‡Ziemssen's *Cyclopædia of the Practice of Medicine*, 1876, Vol. IV, p. 113.

No other abnormality could be seen." The opening which Wolff had made contracted to the size of a pea, but afforded entire relief.

Bitot* (misprinted "Betts" in Mackenzie, *On the Nose and Throat*), of France, relates a case of "atresia or obstruction of the posterior orifices of the nasal fossæ, by two triangular bones (nasopalatine bones)," of which the *New York Medical Journal* makes the following note: In a fœtus of seven months the nasal fossæ "posteriorly were imperforate, the obstruction being due to the presence of two triangular bones of a more or less regular shape, articulating above with the sphenoid, below with the *os quadratum*, or the horizontal portion of the palatine bone. Exteriously their borders correspond with those of the internal wings of the pterygoid apophyses, while internally they infringed one upon the other and formed a median fissure."

E. Zaufal,† of Prague, published, in 1876, the description of the case of a girl, fifteen years of age, with congenital stenosis of the right choana. The obstruction was bony, and was a little in front of the posterior edge of the choana, and at a distance of five and a half centimeters from the front. The plate was placed across the aperture in an oblique direction, extending from within, outwards and backwards, and from below, upwards and backwards. On the left side the nasal cavities were normal, and on the right, in front of the obstruction, of full size, but the mucous membrane here was swollen and yielded a free secretion, and the edge of the nostril was excoriated. The forehead was high and straight, and the eyes were slightly prominent. There was blepharitis, but the patient's vision was good. The hearing was acute, and the voice natural, without any nasal character. The sense of smell was absent on the obstructed side, but acute on the other. No operation was performed.

The next case in chronological order was recorded by Dr. J. Solis Cohen,‡ of Philadelphia, in 1879. It was that of "an

* *Archiv de l'otologie*, Sept., 1874; (*N. Y. Med. Jour.*, July, 1877, 776, or *Amblot*).

† *Prager Medicinische Wochenschrift*, 1876, No. 45, p. 837.

‡ *Disorders of the Throat and Nasal Passages*, Second Edition, p. 100.

infant" who had great difficulty in suckling and breathing and suffered frequent suffocative paroxysms. The child was relieved by "boring through the occluding structures with a knife and steel probe," which was followed by the insertion of a sound, from time to time, and the introduction of small bits of sponge securely fastened to a holder.

Dr. T. G. Morton,* of Philadelphia, treated the following case in the Pennsylvania Hospital: "John B. æt. eight years, was admitted for almost an entire occlusion of the left side of the nostril. The affection had existed from infancy. Had been treated on several occasions without benefit. On being brought to the hospital, Dr. Morton found that a delicate probe could be pushed back between the sides of the nose at its lower part. A sponge tent was then introduced, which, after remaining for four days had stretched the parts sufficiently for the passage of a large catheter. The opening showed no disposition to close. The child was subsequently brought to the hospital for examination, and the result was entirely satisfactory."

Dr. T. R. Ronaldson,† of Edinburgh, gives the notes of a case which he saw in 1881, of a plump and well developed female child, which was delivered after a short and easy labor, in whom existed obstructions of the nasal passages. When it was born it was noticed that the breathing was not natural, and in attempts to inspire "the under lip and cheeks were sucked in," and the lungs were not inflated. It was made to cry by slapping the buttocks, when respiration took place, which was afterwards free, when the mouth was open and the tongue slightly pulled forward. The nostrils were examined and found filled with a translucent, glue-like substance, which was removed *en masse*. Attempts were made to blow air through the nares, and to pass a probe, but without success.

The case was diagnosed as an "organic obstruction of the posterior nares." Whenever a point of moderate asphyxia was reached, the child would open its mouth to cry, and would thus inflate its lung. Hoping that respiration would be thus kept

* Surgery in the Pennsylvania Hospital, 1880, p. 331.

† Edinburgh Medical Journal, May, 1881, p. 1035.

up, the case was left with the intention of doing something for its relief later. But contrary to the hopes of the doctor, the child died an hour after his departure.

An imperfect post-mortem examination showed that the posterior nares were completely occluded by a firm membrane, through which an ordinary surgical probe "could hardly be forced without bending on itself." No other abnormality was found, "the nose, anterior nares, the hard and soft palate being normal."

Dr. Oren D. Pomeroy,* of New York, reported a case, in 1881, in which there was bony occlusion of the right nostril in a man forty-four years of age, which had existed "longer than he could remember." There was abundant catarrhal secretion, which was rather offensive. The closure of the nostril was a source of embarrassment in cleansing it. The nares, both anterior and posterior, were narrow. Dr. Pomeroy states that the obstruction was about half an inch anterior to the extremity of the posterior nares, that it was a "solid wall of bone" and "of no great thickness." There was considerable deafness on the affected side. He perforated the bone by drills, and using, finally, "a cross-cut burr drill," the head having an almond shape, and as large as could be conveniently introduced into the nostril—about two and a half lines in diameter. After three operations the opening was sufficiently large "for moderately difficult respiration through the nostril."

At a meeting of the New York Society of German Physicians, held May 27th, 1881, Dr. Richard C. Brandeis,† of New York, showed a young girl who had come to him with a nasal obstruction of the left side. After removal of several polypi, he found a complete bony occlusion about one and three fourths inches from the nostril. The bony plate was perforated by means of the galvano-cautery, and nasal breathing was entirely restored.

*Transactions of the N. Y. State Medical Society, 1881, p. 200; also Pomeroy's *Diseases of the Ear*, 1883, p. 201.

†New York Medical Record, Nov. 12, 1881, p. 332.

Dr. T. B. Wilkerson,* of Young's Cross Roads, N. C., related, in 1882, the following case: W. C., æt. six years, has had no nasal respiration since birth; and when an infant was hand-fed, being unable to nurse from the mother's breast. The anterior outlets of the nasal passages were very small, "scarcely admitting the ordinary silver catheter," and the fossæ presented an irritated appearance. The edges of the eye lids were red, and there was occasional "flooding" of the eyes. The mouth was open. The general mental and physical condition of the patient was good. There was no deafness, but the "special senses of smell and taste were very deficient." Careful examination showed both nasal cavities closed at their posterior outlets. The obstructions were opened by a revolving trocar and canula, made especially for the case. "Gum-tubing" with holes cut in it at different points was inserted in each side and allowed to remain six days, the parts being cleansed, in the meantime, by syringing through the tubing. A gum bougie was afterwards passed every day. The channels remained pervious, and nasal respiration was established, "adding greatly to the comfort of the patient."

Dr. Sommer,† of Prague, presented to the medical society of that city, in 1883, a lad, nineteen years of age, in whom there was a congenital bony occlusion of the left choana. The head had somewhat the shape of a hydrocephalic. The external nasal framework was regularly developed and no abnormality was to be observed about the face, or in the cavity of the mouth. The right nasal cavity was wholly pervious, but the left was impenetrable, as neither air by expiration or inspiration, or water by injection, could be forced through it. The secretion of normal mucus was constantly discharging from its anterior opening, and the sense of smell was entirely wanting on this side. By anterior and posterior examination, the left choana was found entirely occluded by an obliquely standing bony plate, covered with mucous membrane. The patient declined to be operated upon.

E. Zaufal,‡ according to the reporter of Sommer's case above, mentions a second case which had come under his observation.

* N. C. Medical Journal, June, 1882, p. 305.

† Wiener Medizinische Presse, April, 1883, No. 15, p. 470.

‡ Wiener Med. Presse, April, 1883.

A perfectly healthy student fourteen years old, had stenosis of the left side of the nose, which was "wholly identical" with that of Sommer's case.

Prof. L. v. Schrötter,* of Vienna, last year gave a detailed description of a case which he had treated the year before (1884). The patient M. Auer, æt. nineteen years, was a strong and well-developed farmer's daughter with occlusion of both choanæ which had existed from birth. The facial expression was very striking, being marked by slightly prominent eyes, mouth open, under lip somewhat hanging, naso-labial folds wanting, and the action of the alæ of the nose deficient. The secretion from the nose was free when lachrymation was increased, as in crying or long exposure to the cold air. The mouth and throat were most of the time dry, and there were occasional headaches. The hearing was below normal, taste was poor, and there was absolutely no sense of smell. The speech was a little difficult and nasal in character.

Prof. Grüber found the membranæ tympani deeply drawn inwards. The nasal fossæ were of normal size in front, but the mucous membrane, in the lower parts of these cavities, was "granulated, swollen, and congested." Posteriorly all parts were normal, except the mucous membrane above, which was swollen. Both choanæ were closed with diaphragms which were set a little in front of the posterior orifices. They were at first considered membranous, but were, after operation, found to be bony. They were thickest near the outer parts, and their direction was from below, upwards and backwards.

The treatment consisted in the repeated application of the galvano-cautery and latterly the use of a covered chisel, to remove the thicker bony parts which the cautery did not readily destroy. The treatment was continued for several weeks. The openings were then of sufficient size for easy nasal respiration, and the patient was finally discharged May 13th, (1884). She was then able to breathe freely through the nose, the speech and facial expression had greatly improved, and the sense of smell was regained, although imperfectly.

* Monatschrift für Orenheilkunde, Berlin, April, 1885, p. 97.

Dr. W. E. Casselberry,* of Chicago, relates, in 1885, the case of M. E., a Russian Polander, æt. about forty years, who had suffered during the past thirteen years from an obstruction of the nasal chambers. "Examination showed that a tense membrane covered the left choana almost completely." Its free edge was thin and sharp, and approached so near the septum narum that there was only a very small chink between the two. It could be pushed backward by the probe, and was from one to two millimetres in thickness. "The choana on the right side was partially covered by a membrane, which extended about half way across the aperture." This membrane was much thicker and less tense than that on the left side. The pharyngeal mouth of the Eustachian tube could not be seen on either side with the rhinoscope, the membranes evidently lying behind them. There were many distressing symptoms in this case from mouth-breathing and naso-pharyngeal catarrh. "Deafness in the left ear and annoying tinnitus aurium had long been prominent symptoms." There were also numerous head symptoms.

The obstructions were fully overcome by means of the galvano-cautery, the operation being repeated on each side three or four times. As soon as the nasal respiration was freely established, the patient was completely relieved of all cephalic symptoms, including the left-sided deafness.†

Another case has been cited by Dr. G. M. Lefferts,‡ of New York, and is credited by him to Gosselin. But I am unable to verify the doctor's reference; and as I cannot find the case anywhere, I do not include it in my report.

I have now presented a brief review of sixteen cases, besides my own, using, so far as possible, the phraseology of the original reports. The total number of cases included in this paper is, therefore, seventeen. A brief analysis of these shows that ten were males, five females, two, sex not mentioned. Two died soon after birth, one was a seven months foetus, and fourteen

* Journal of the American Medical Association, Aug. 8, 1885, p. 148.

† I include this among the list of cases of congenital occlusion, as the history, as given by a patient, is often very unreliable, and as I cannot conceive of an obstruction of this kind as originating otherwise than congenitally. Dr. Casselberry also suggests that "it is most likely" congenital.

‡ International Encyclopædia of Surgery, 1885, Vol. V., p. 411.

were living at the time of the respective reports. Careful post-mortem examinations were made in two cases, an imperfect one in one case. The occlusion was complete in both posterior nares in eight cases, in the right in four, and in the left in three. It was incomplete in both nares in one case, and in the left naris in one. The occlusion was bony in twelve cases, and membranous in five. The two cases of incomplete occlusion were of the membranous variety.

As to the genesis of these obstructions, it appears that those which are bony are developed from the perpendicular or horizontal plate of the os palatinum, or both, and thence extend across the choanæ, usually in an oblique direction from below, upwards and backwards, and from within, outwards and backwards, to be united with the sphenoid above, and the vomer, or its opposite fellow at the median line. The connection of these plates with the palate bone is *indicated* by their situation in the living subject, and is *demonstrated* by the dissections that have been made.

Certain symptoms were found to be common to most of the cases. For instance, in bilateral occlusion there were the altered facial expression, difficulty in articulation, with nasal intonations, dryness of the mouth and throat, suffocative attacks and respiratory difficulties in infancy, inability to suckle, etc. In these cases, and in those with unilateral atresia as well, there were also an entire absence of the sense of smell on the affected sides, together with a constant mucous discharge, the discharge being increased whenever there was an extra secretion of tears. Usually the mucous membrane, corresponding to the side obstructed, was found swollen and congested, at least, anteriorly. Ear disturbances were sometimes noticed, and in my own case mastication and deglutition were also less easily performed than by other persons.

Regarding the treatment and results, I may add that the partition-walls have been opened in different ways, and the results have generally been satisfactory. The galvano-cautery, drills of different forms, trocars, chisels, knife, tents, tubes, etc.

have all been effectually used. The galvano-cautery seems to have served the best purpose when the occlusion was membranous. Various reflex and distressing symptoms have been removed by opening the closed passages, and the senses of hearing, taste and smell have occasionally improved. In cases of double occlusion, immense relief has followed full and free nasal respiration, and with it a comfort to the patient never known before. The facial expression has become natural, and the articulation and intonation have much improved.

The prognosis is generally admitted to be unfavorable in infants, in all forms of stenosis of both nasal passages, from whatever cause. Some of the cases of double congenital occlusion have died soon after birth from undoubted asphyxia, and all of them have been reared with difficulty. This suggests timely relief by opening the obstructions without delay, in the meantime keeping the mouth open and tongue somewhat drawn forward, so that the child can breathe till nasal respiration is established by the various means that are always at the command of the practitioner.

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* *MENTAL INFLUENCE IN DISEASE.*

By DR. W. L. CONKLIN, ROCHESTER, N. Y.

The student of medicine very properly begins his work by seeking to obtain a thorough knowledge of the human body. In the dissecting room he observes the relative position of muscle, artery and nerve, and carefully notes the anatomical landmarks which are to aid him in future operations. In the histological and pathological laboratories he studies healthy and diseased tissues, and learns to distinguish the one from the other. He also acquaints himself with the phenomena presented by the living body, becomes familiar with the functions of its various organs and with the diseases produced by the failure or perversion of those functions. In short, his aim is to learn all he can about man—as an animal; and all will agree that the more he learns the better will he be fitted for the practice of his profession. But, in order to be fully equipped

* Read before the Rochester Pathological Society, September 16th

for his work, he must go farther than this, and study man as man, not merely as an animal; and such study must become his life habit, if he is to attain more than the minimum of success. As well might the balance-wheel be left out of account by the machinist who would acquire a thorough knowledge of an intricate piece of machinery, as that the mind be disregarded or little thought of by the physician. The one secures steadiness and harmony of action in the various parts of a machine—wonderful, it is true, in its construction and in the work which it performs, but, after all, only a machine. The other presides over and guides to effective action a mechanism far more intricate in construction, and, when so guided, capable of producing infinitely greater and more lasting results. This two-fold nature of man ought to be kept constantly in view, for whatever our personal convictions may be in regard to the identity or non-identity of mind and matter, we are forced to deal with man as we find him—a complex being; and any failure on our part to recognize this fact, or the other fact of the close relationship existing between mind and body, will result in discomfort and disappointment at our lack of success. One of our American humorous philosophers disposed of a knotty question by cogitating thus: "What is mind? No matter. What is matter? Never mind." While I should hardly be willing to regard such conclusions as final, it is far from my purpose to attempt the discussion of so abstruse a subject as the relationship of mind and body, from a philosophical standpoint.

I wish simply to call attention to the matter as having a practical bearing on our work as physicians, hoping that this may lead to profitable discussion of what I believe to be an important subject. In the performance of every act which characterizes man as something more than an animal, the mind is the moving, controlling power. By it various lines of action are planned and carefully considered, and when a particular course has been fixed upon, the will issues its mandate, and the body, in every atom of which it is composed, obeys the

command. So close is the relationship between mind and body that only when the condition of each admits of harmonious action is the man capable of effecting the highest results.

Even the machine-like involuntary acts of the body are often greatly modified by mental influence. Cases are not uncommon in which the mental depression, resulting from bad news, is sufficient completely to arrest the process of digestion; and all have noticed the effect of sudden joy or fear upon respiration and the heart's action. The following account of the method sometimes used in India for the detection of a thief is of interest, as showing the effect of fear and anxiety in checking the secretion of saliva. When a robbery has been committed, a conjurer is sent for, and if, in a few days, the property is not restored, he proceeds with his mysterious operations, one of which is as follows: The suspected are all required to masticate a quantity of boiled rice for some time, and then to spit it upon separate leaves for inspection. The conjurer examines it very knowingly, and immediately points out the culprit; the rice which he masticated being perfectly dry, while that which was masticated by the others is moistened with saliva. These are but illustrations of the many modifications of organic action which are the result of the mental influence. Alienists believe that insanity is dependent upon physical disease or abnormality. They see abundant and conclusive evidence of the close relationship between mind and body, and never think of treating the one without due attention to the other. But is the converse the case? Does the physician in general practice keep this fact as constantly in mind, and pay sufficient attention to the mental condition of his patients while treating their bodily ailments?

It has been said that the busy and successful practitioner has neither time nor inclination to pay much attention to quacks and their methods, and this is true. But perhaps he may learn at least one lesson from them. Many of them, though profoundly ignorant of the science of medicine, and as unscrupulous as ignorant, are, nevertheless, shrewd and observing; and

recognizing the importance of this underlying principle of the power of mind over body, they take advantage of it in every possible way, and I believe that to this fact is due the success with which they sometimes meet in spite of their ignorance and utter disregard of the principles which lie at the foundation of all rational and lawful practice. The methods used by mind-curists, so called faith-curists, magnetic healers, and all the rest of that class, are worthy only of condemnation; but there are other applications of the principle upon which their success, so far as they are successful, is dependent, which may well be borne in mind by the regular practitioner, and made use of by him in his efforts to combat and control disease.

I now wish to call your attention to a few well authenticated cases, which will, I hope, serve the double purpose of illustrating the influence exerted by the mind in disease, and suggesting, as well, some practical applications of the subject. It may be objected that such cases as these are exceptional, and that little, therefore, can be learned from them which will be capable of application in the daily routine of practice. But I believe that mental influence which is the same in kind, if not in degree, is present in many of the cases with which we meet, and that it should be taken into account as an important factor in the problem of how best to treat such cases.

Hope is a medicine, the use of which is clearly indicated in a great variety of diseases; and so little does it possess of troublesome incompatibility or unchangeableness of form, that, as has been said, "It can concentrate its healing virtue in a homeopathic globule or diffuse it through all the multitudinous baths, douches and wet bandages of a hydropathic establishment." The disastrous effects of a loss of hope, as well as its wonderful efficacy as a remedial agent, are illustrated by the following incident: During the siege of Breda, in 1625, many of the soldiers in the army of the Prince of Orange were prostrated with scurvy. Patients had lost all hope, and this, says Dr. Frederick van der Mye, who was present, was the most

terrible circumstance of all, and the evident cause of the great mortality which attended the disease. At length it was announced that an infallible remedy had been discovered, and that it would be given to all who were sick. Hope came back to those who had been hopeless; and the administration, in minute doses, of a few vials of sham medicine was followed by astonishing results. Such as had not moved their limbs for months, says the account, were seen walking in the streets, sound, straight and well. Surely if hope, growing out of the effect on the imagination of the administration of a placebo, is capable of producing such results, the physician will do well to avail himself, so far as possible, of its aid, while making intelligent use of remedies which he believes to be in themselves effective; and is it not best to retain this powerful ally, as long as possible, by concealing the fact from patients whom we believe to be dangerously ill, so long as we have the least hope of their recovery? "Hope deferred maketh the heart sick," and the loss of hope is not unfrequently the cause of fatal sickness. It is said that criminals who have received a life-sentence often rally from severe attacks of illness with unusual difficulty, and that they are much more liable to a relapse from the slightest cause, than are those who are sustained and strengthened by the cordial of hope. The direful results of hopelessness are strikingly illustrated by a disease with which we are, for the most part, at least, happily unfamiliar. I quote from a description of the disease, written by an English physician, forty years ago. "It begins by indulgence in despondency, then follows loss of appetite, constant pain in the stomach, difficulty in breathing, paleness of the face and palms of the hands, whiteness of the tongue, with inky spots on it, white lips, and inability to move. Then the white of the eyes becomes glassy, the skin turns of an olive color and cold to the touch, water collects in every part of the body and the sufferer cannot breathe, except in an erect position. The glands then become inflamed, the liver hardened, and the blood, poor, vapid and colorless, no longer stimulates the heart, and death

soon terminates the scene. This malady is dignified by the title *Cachexia Africana*, because, alas! it has killed thousands on thousands of the children of Africa, when forced from 'home and all its pleasures.' The physician can often do much to inspire his patients with hope and courage. Having made a diagnosis he knows with what he has to deal, and knows, also, that in a large majority of cases of acute disease the prognosis is good. He believes, as well, that in many chronic cases a judicious use of remedies will be followed by an improvement, at least, in the condition of his patient. The patient, on the contrary, knows little about his real condition, and perhaps is torturing himself with the fear that his sickness will terminate fatally, when, in reality, there is little danger of such a result. What wonder, then, that a few cheering reassuring words do the sick man a world of good; and is it not one of the pleasant duties of a physician to make use of such a potent remedy, when he can do so in honesty.

The course and issue of disease is often influenced to so great a degree by the mental make up of the patient that the latter should be taken carefully into account in the prognosis. A strong will power in the patient affords valuable aid to the physician, while the lack of it often does much to render his best efforts of no avail. It is related of Andrew Crosse, the electrician, that he was once severely bitten by a cat, which, on the same day, died of hydrophobia. He succeeded in dismissing all fears from his mind, and no sign of the dread disease appeared until the end of three months, when he suddenly felt severe pain in his arm, accompanied by intense thirst. A strong spasm shot across his throat, and then the terrible conviction came to his mind that he was about to fall a victim to hydrophobia. He says that for an hour he suffered almost every conceivable agony of mind and body, and then, believing it to be his only hope, he determined to make a desperate effort to overcome the disease. Taking his gun, he started out in search of game. None was found, but all day long he kept going, and, though suffering severely, his determination to get the better, if possible, of the

fearful malady, did not diminish in strength. On reaching home at night, he felt much better, and, in three days, the pain and other symptoms had entirely disappeared. In striking contrast with this case is one recorded by Dr. John Moore. A woman had her dress bitten by a dog. She had heard of hydrophobia, and immediately fancied that she had it; and, what is more surprising, she died while manifesting symptoms so like those of canine madness that skillful physicians could not discover any difference.

Dr. J. M. Buckley, says that "as long ago as the time of John Hunter, it was established by a variety of experiments, and by his own experience, that the concentration of attention upon any part of the human system affected first the sensations, then produced a change in the circulation, next a modification of the nutrition, and finally a change in structure;" and there can, I think, be little doubt that such organic change sometimes results from mental influence. A writer in *Littell's Living Age* records a case in point, the facts of which are, in substance, as follows: A young lady, of rather nervous temperament, imagined that a bristle from her tooth brush had lodged in her throat. Careful examinations were made by the family physician and others, but all failed to find the bristle, and all assured the young lady that she must be mistaken in regard to the matter. She refused to believe them, however, and after a time there was actual inflammation present, as if from the irritation of a foreign body. Matters went from bad to worse until, at last, a young surgeon was called, who, after hearing the history of the case, adopted a new plan of treatment. After a thorough examination he told his patient that she was quite right and that he had at last discovered the offending bristle, but it would be necessary for him to go to his office for the best instrument with which to remove it. At the office he carefully concealed a bristle within the instrument, and on returning introduced both with great care, into his patient's throat. With enough of a pinch of the sensitive mucous membrane to give her an idea that something was being

done, the bristle was withdrawn and exhibited in triumph to the young lady, who now had the intense satisfaction of supposing that she had been right and all her former physicians wrong. The inflammation quickly subsided after the removal of its mental cause, and the young surgeon's wonderful skill was heralded far and near.

In cases termed "hysterical" we see evidence, perhaps more than in any others, of the close relationship between mental and bodily conditions, and the former as well as the latter should be duly considered in the treatment. Often an abnormal mental condition, together with the disturbance of bodily function which it has produced, will quickly disappear under the influence of some powerful mental impression. This truth is well illustrated by the following incident, though such heroic treatment would hardly be suited to private practice: "The great Boerhaave had a number of patients seized with epileptic fits, in a hospital, from sympathy with a person who fell down in a convulsion before them. This physician was puzzled how to act, for the sympathetic fits were as violent and obstinate as those arising from bodily disease. But, reflecting that they were produced by an impression on the mind, he resolved to eradicate them by a still stronger impression, and so directed hot irons to be prepared and applied to the first person who subsequently had a fit. The consequence was not a person was seized afterward."

As careful and accurate an observer as J. Milner Fothergill has noticed particular mental characteristics present in various diseases. He says much mental instability is found among sufferers from chronic heart disease. A very old patient who was the subject of aortic obstruction became remarkably polite when the results of the cardiac lesion were very marked, a mental attitude far removed from that assumed at other times. He has observed, however, that usually a totally opposite character of change is produced, and the effect is to cause the mental operations to be imperfect, unsustained and unequal; while there are present suspicion, doubtfulness, vacillation and caprice. The gouty patient is

a compound of irritability and suspicion, bad temper and anxiety. The victim of cancer shows a sullen and defiant submission to the inevitable. There is rarely any active and positive attempt made by the sufferers themselves to avert their doom. The mental attitude of pyæmia is that of absolute indifference. In diabetes mellitus there is a condition of mental languor and depression which is as marked as the muscular lethargy and lassitude manifested by sufferers from that disease. And it is no doubt true that not unfrequently a more or less morbid mental condition is one of the results of severe or long-continued sickness. This condition reacting upon the body, tends to interfere with a return to physical strength and soundness. In this way a vicious circle is formed which must be broken in upon before health can be restored, or even a marked improvement effected in the condition of the patient. Such patients are often advised to try a change of air, as the phrase goes, and this is sometimes followed by decided improvement. But is not the improvement due, in a large degree at least, to the mental rest and recuperation resulting from a change in the general trend of thought and feeling? While even a brief sojourn in a distant state is out of the question with the majority of our patients, many of them would not look upon a visit of a few days or weeks in duration to an adjoining town or county as an impossibility, and I believe that often as much improvement would result from the latter change as from the former. The physician may sometimes render an invaluable service by insisting on the importance of an entire change of surroundings for patients, who, worn out by disease or undue mental strain, are in danger of lapsing into a condition of chronic invalidism or the still sadder condition of mental derangement.

Mind and body, then, bear a close relationship to each other, and disease of the latter is sometimes caused, very often greatly modified, by the condition of the former. If this fact be kept in mind, and its importance duly considered in deciding on a plan of treatment, I believe that success will often follow where failure would have resulted had no account been made of the modifying effects of mental influence.

SYCOSIS NON-PARASITICA.

By A. R. DAVIDSON, M. D.,

Prof. Medical Chemistry and Dermatology, Niagara University, one of the Physicians of the Buffalo Hospital of the Sisters of Charity.

Several cases of this disease have lately presented themselves to me, having a history and appearance which would indicate that the nature and appropriate treatment of this affection of the skin is not always recognized by the general practitioner. The patients usually present themselves with the part diseased partially hidden under a thick growth of hair, and when this is the case we are never surprised to learn that they have been under treatment for a long time, but have rather grown worse than better. Of the many definitions of the disease that given by Dubring is the simplest and most complete, and I give it in his own words: "*Sycosis non-parasitica* is a chronic, inflammatory, non-contagious disease, involving the hair follicles, characterized by pustules, papules and tubercles perforated by hairs, accompanied usually with burning sensations."

The disease may appear on any part of the body provided with relatively long hair, but its more frequent seat is the region of the chin and cheek, and particularly the upper lip. Its frequent location on the chin has given rise to the synonym *acne mentagra*. English dermatologists frequently use the name *acne sycosis*, but the appellation *acne* is a misnomer, as it should be confined to those affections in which the sebaceous glands are chiefly affected. It is, of course, true that in the case of the long hairs the sebaceous glands are really appendages of the hair follicle, but it is to affections of the large and complex glandular structure, to which the lanugo or rudimentary hairs seem accessory, the orifice of their ducts opening directly upon the cutaneous surface, that we would confine the term. The name *sycosis* is derived from the conical, discrete, reddish papules, visible at the part where the hair makes its exit from the duct of the follicle, and which (by a stretch of imagination) suggests the appearance of the surface of a fig. These papules are

painful, giving rise to a burning sensation, occasionally itching, when being picked or torn by the fingers, the pus concretes into a crust at the bottom of the hair. There is marked redness of the surrounding skin, and, more or less, inflammatory thickening also usually exists. The disease extends gradually from the initial lesions, and in chronic cases an important clinical feature is the symmetrical and general involvement of the entire surface. The appearance of one cheek is the counterpart of that of the other. The hairs are usually firmly fixed in these follicles, and depilation is painful, but from those where active suppuration exists they may be removed with ease. The disease gives rise to marked deformity, and the patient, in order to cover it as much as possible, and also from the pain and difficulty in shaving, allows his beard or moustache to grow. As long as he does so he will not recover, indeed, this is a disease which does not get well if left alone. What the exciting cause is, is not easily discovered. All classes of society yield cases; it occurs usually between the ages of twenty-five and fifty. It is, as its name indicates, non-parasitic. It is not contagious. Fox says, it occurs generally in patients markedly debilitated, and especially dyspeptic. Duhring says, it attacks the well-nourished as well as those surrounded by poverty. I have myself met with it in all social conditions, but in the majority of cases the patients have been strong, healthy men. The cause of the peculiar obstinacy is, I think, more easily accounted for. The disease is, in its nature, a simple perifollicular inflammation. In health the motions of the free shaft of the hairs do not irritate the follicle in which it is set. In condition of disease it is quite different, as Hyde says: "Each free hair operates like a lever upon the inflamed ring of tissue which encircles it, whenever by the touch of the hand, by the action of brushing, by currents of air, or by any agency whatever a motion is imparted to it. Every such movement must tease, to a variable degree, the surface beneath, already irritated, and when estimate is made of the hundreds of such movements to which each hair is subjected during a period of

twenty-four hours, the relative importance of this apparently insignificant factor may be appreciated."

In the diagnosis of sycosis non-parasitic, we have to distinguish it from tinea sycosis, eczema and a syphilide.

The parasitic and non-parasitic forms of the disease differ in their clinical features as follows (Hyde, fol. 343.): The non-parasitic form is recognizable by—

1. The greater redness of the involved surface.
2. The extension of the disease in advanced cases to larger areas of symmetrical development.
3. The more superficial character of the lesion.
4. The firm implantation of the hair in the follicles and their relative freedom, in all cases, from fractures and relics in the form of stumps.

The parasitic form is peculiar in that it is—

1. Comparatively infrequent.
2. Decidedly less redness of the surface attacked.
3. Its frequent limitation to a circumscribed area.
4. The peculiar lumpy, tubercular, nodular and uneven character of the patch upon which Duhring has laid emphasis; and, lastly,
5. The early loosening of the hairs in their follicles, as also of the occurrence of fractured hair and stumps, exhibiting, usually at the bulb, unmistakable evidence of the nature of the disease and the presence of the tricophyton.

To pustular eczema sycosis often bears a striking likeness, from which, however, it may be known by the absence of oozing, as well as of itching. Eczema, moreover, attacking the beard, would be apt to show itself upon other portions of the face. One of the most useful of any single characteristic is, however, the fact, that in sycosis *each pustule is penetrated, through its center, by a hair.*

From acuminate-pustular syphiloderm, there ought to be no difficulty in distinguishing sycosis. In the syphilide there will always be pustules upon other regions of the face, as well as upon the body. Again, the pustular syphiloderm is much less

chronic in its course, and, when long persistent in one locality, is characterized by ulceration and the production of very characteristic crusts.

In several cases which have come under my observation during the last year, the diagnosis of the physician had been "Eczema Barbæ." In each case treatment had been vigorous and long continued and worse than useless, but this result was not the consequence of the error in diagnosis, but chiefly to the neglect of what I consider essential to recovery, either in sycosis or in eczema of the beard, namely—the removal of the hair. To this direction the patient almost invariably demurs; he says the pain of shaving would be unbearable, and, further, without the protection of the beard, the deformity would be so great as to necessitate his staying in the house. A statement of the reason why shaving is absolutely necessary, and the assurance that after the first shaving the pain will be slight, and improvements so rapid that the disfigurement will not be long endured is sufficient for most patients.

The pain of the first shaving is greatly relieved by clipping the hair short and keeping it thoroughly saturated with pure olive oil for about twelve hours, after which a sharp razor will remove the hair without much discomfort, even when there is much tenderness, swelling and pustulation of the skin.

The shaving should be repeated on every second day. The appearance, after the first shaving, fully realizes the patient's anticipation. The red infiltrated skin, further marred by pustules, papules and pustulo-papules, makes him anxiously hope that your prediction of speedy improvement may be fulfilled.

The application of very hot water, in which a little borax is dissolved, the opening of any purulent collection, and this, followed by the application of the following ointment, will, in a few days, produce such an improvement that your patient is satisfied to continue the treatment:

R̄	Ung. Diachylon (Hebra),	-	-	3 iss.
	Zinci Oxidi,	-	-	3 ii.
	Hydr. Ammon. Chlorid.,	-	-	gr. xx.

Bismuth Sub-Nitratis, - - - ℥ ii.

Ung. Petrolat, - - - q. s. ℥ iii.

M. Ft. Ungt.

This should be spread thickly on cloth and bound upon the affected part. The subsequent treatment is largely that of eczema of equal grade of severity.

If, as sometimes happens, some patches are pustulated, the entire affected spot must be epilated.

Occasionally, too, we meet with cases of sycosis confined to the upper lip, caused by a nasal catarrh. Here the first step is to relieve the catarrh and put a stop to the irritating discharge, and then to remove all the hair from the affected area. In any case of chronic circumscribed sycosis it is better to pull out all hairs seated in mature pustules. They are easily extracted, and it gives free exit to the pus. You thus prevent the entire destruction of the follicle and consequent alopecia.

Clinical Reports.

ACUTE YELLOW ATROPHY OF THE LIVER, WITH REPORT OF CASE,

By F. R. CAMPBELL, A. M., M. D.

Acute yellow atrophy of the liver, or hepatitis cytophthora, is one of the rarest diseases known to man. Not more than 200 cases are recorded in all medical history. In some large hospitals the affection is not observed in years, while the great majority of physicians never meet with a case in their practice. Nevertheless cases do occur and we are liable to be called upon to treat them. Many if not most of the cases of malignant jaundice, or icterus gravis of the older writers were really cases of acute atrophy. Morgagni reported the first case, Rokitsky, in 1842, gave the first complete description of the disease, and since the publication of his observations the disease has many times been described.

In regard to the causes of acute atrophy of the liver but little is known. Statistics show that three fifths of all cases occur among females, that pregnant women are most frequently affected, and that seventy per cent. of the cases occur between the ages of

twenty and forty-five. For the most part it is well-nourished persons who are attacked, and far more frequently robust than delicate individuals. Intemperance, over-feeding, and sexual excesses have all been mentioned as predisposing causes, but there are very few facts to substantiate such statements.

Of exciting causes, still less is known; depressing mental emotion, anger and fright have been enumerated in this connection. It is sometimes a secondary affection following cirrhosis or *obstruction of the bile ducts*. It sometimes complicates typhoid fever, puerperal fever, and is usually associated with phosphorus poisoning.

The pathological changes characteristic of the disease are reduction of size of the liver, its tissues are flaccid and have a saffron or rhubarb color. Sometimes the size is diminished one half or more, the reduction being due to atrophy of the hepatic cells. Extravasations of blood are found in many organs especially the stomach and intestines. The spleen is usually enlarged and often there are inflammatory changes in the kidneys and other organs.

With regard to clinical history the disease is divided into two periods, the prodromal, or mild stage, and the cholæmic, or serious stage, each being characterized by special symptoms, although in some cases the prodromal stage is apparently absent. The first symptom is usually loss of appetite followed in many cases by nausea, vomiting and constipation. Then jaundice makes its appearance, the urine is stained with bile pigments and the fæces assume a clayey color. Pain is present in the region of the liver in about one-half of all cases; fever is developed, the temperature rising and falling irregularly, but disappearing entirely at the beginning of the second stage. The pulse is at first not accelerated but increases in frequency when the fever comes on. The patient is troubled with obstinate insomnia and becomes restless, tossing and rolling in his bed. The liver is not as a rule reduced in size in this stage.

Before the second stage begins there is often an apparent improvement in the patient's condition, the temperature becomes

normal and the gastric disturbances are not so marked. But the apparent improvement is only a calm before the storm. Marked nervous and psychical disturbances are suddenly developed, the pupils are dilated, there are muscular twitchings, mental excitement, hallucinations of sight and hearing, delirium, then coma, sometimes followed by convulsions and always by death. This second period has been divided by Ozonam into the stage of excitement and the stage of collapse. In the former the delirium is often of a fierce character, it is impossible to keep the patient in bed, he makes frequent attempts to escape, and often attacks his attendants. In the latter stage the pulse becomes very frequent and loses strength, the tongue becomes dry and brown, sordes collect on the teeth, the respiration is accelerated and a peculiar moaning sound is produced, the delirium becomes muttering, and with the coma stertorous breathing is observed, the quantity of urine is diminished; there may be entire suppression or retention. In the urine crystals of leucin and tyrosin are found. These may be present in the first period, but are not so abundant. Albumen is usually present; the amount of urea is reduced. Toward the close of life hemorrhages occur in various organs, especially the alimentary canal, and black vomit and fæces may be observed. The liver rapidly diminishes in size while the spleen becomes enlarged.

A positive diagnosis in the first stage is, according to all authorities, impossible, though when we have vomiting and great prostration in connection with icterus, acute atrophy of the liver may be suspected, but even these symptoms are sometimes present in simple obstructive jaundice. With the appearance of the second or toxæmic stage, the diagnosis usually becomes clear. "The icterus, the delirium and coma, the absence of fever, the diminution of hepatic dullness and the presence of leucin and tyrosin in the urine, constitute a train of symptoms repeated in no other disease" (Thierfelder). Acute phosphorus poisoning is the only affection which would render a differential diagnosis difficult.

The duration of the disease varies from four days to as many weeks, but the second stage is almost uniformly very limited.

Thirty-seven per cent. of all cases die within ten days of the appearance of the first symptoms. Of 118 cases, fifty-six died within forty-eight hours from beginning of second stage, eighty-two within three days, and ninety-nine within four days. While only one lived fourteen days. It is very questionable if the disease can terminate otherwise than fatally (Eichorst, Thierfelder, Bartholow). Four or five recoveries have been reported, but in these cases the diagnosis is doubtful. Accordingly no specific medication is possible and all remedies must be administered to meet symptomatic indications.

The writer has recently had under his care a patient whose symptoms were those of a typical case of acute yellow atrophy of liver, and although an autopsy could not be obtained to verify the diagnosis, he considers it worthy of a place in medical literature.

F. H. W., male, age 42, married, manufacturer, called at my office, Nov. 11th, to consult me regarding a severe pain in his epigastric and right hypochondriac regions. He was a dark complexioned, corpulent man of a bilious temperament. He had always been a total abstainer from alcohol, but was a large eater and fond of rich food. He had had hernia and typhoid fever twenty years ago; on recovering from the fever the hernia was found to be cured. Since the above-mentioned sickness he had enjoyed the best of health, with the exception of a slight attack of jaundice three years ago. During the past year was troubled with irritability of bladder, and occasional attacks of pain in epigastrium, which he attributed to dyspepsia, and for the relief of which he was in the habit of taking tablets of pepsin and Bethesda water. On the evening of November 8th, after eating a hearty meal, he had an attack of nausea and vomiting, but no pain. He prescribed for himself a purgative and on the morning of the 9th, said he was well, with the exception of loss of appetite. On the evening of the 10th, while riding in a sleeping car, he was attacked with a severe pain shooting from the epigastrium toward the right scapula. This pain, which he described as "most agonizing," continued during the night with only

slight intermissions. He was bathed with a cold perspiration, and felt that even death was preferable to such suffering. This pain disappeared during the day, and when seen by the writer only a slight tenderness in hepatic region was observed. His eyes were jaundiced, urine gave the characteristic green color, when examined for bile by Maréchal's iodine test; Genelin's test also showed the presence of biliory acids in urine; albumen was absent. No test made for leucin and tyrosin. His pulse and temperature were normal, his tongue was furred but not dry. Suspecting that he had had an attack of biliary colic, I prescribed for him rest in bed, a nitrogenous diet, excluding all fats and carbo-hydrates, and ordered phosphate of sodium $\mathfrak{z}$ i. t. i. d., as a laxative, and acid hydrochloric dil, m. v., every four hours. In case he had another attack of pain, I directed him to send for me.

Nov. 12th, at 2 a. m., was called to patient; found him suffering from the pain described as occurring the preceding night, but not so severe. Administered morph. sulph., gr. $\frac{1}{4}$, with atropia gr. 1-150 subcutaneously. The pain was soon relieved and the patient rested well during the remainder of the night. During the day the jaundice increased, discoloring his forehead and neck; the quantity of urine was reduced; fæces of a bluish clayey color. Bethesda water was added to the preceding treatment. No anodyne or hypnotic was given at night. Pulse, 70; temperature, $99\frac{1}{2}^{\circ}$.

Nov. 13th.—In morning learned that patient had not slept and was very restless during the night, was troubled with headache, pulse, 72; temperature, normal; in the evening found pulse, 80; temperature, 101° . Ordered quininæ sulph., gr. xv., one dose, and urethan, gr. xlv, as an hypnotic.

Nov. 14th.—At 3 a. m. was called and found that my patient had not slept. He requested a dose of morphine, and gr. 1-6 was given subcutaneously, which enabled him to rest well during the remainder of the night. At 8 a. m. temperature was $99\frac{1}{2}^{\circ}$, with no signs of cinchonism. The amount of urine increased, but of a dark brown color. At 8 p. m., pulse, 90; temperature,

102°; color of fæces unchanged. Quinine repeated and morph. sulph., gr. $\frac{1}{4}$, with atropia administered as before.

Nov. 15th.—Patient had rested fairly well, said he was feeling better, pulse, 90; temperature, 100 $\frac{1}{2}$ °. Said he had found two hard lumps the size of a pea in his fæces, but these were not seen by writer. In the evening his pulse was 110, and temperature 103°. Advised him to send for his wife, which he refused to do. Appeared nervous, but not incoherent or delirious. Gave quinine and morphine, as before, but was called at 2 A. M., when another doze, gr. 1-6 was given. Urine obtained for examination.

Nov. 16th.—Found my patient up and dressed at 8 A. M., said he felt well, and would go home. Pulse, 90; temperature, normal. Observed that his pupils were dilated and his voice tremulous. At 1 P. M. called on him and found his condition about the same; talked rationally. Pulse, 100, and temperature still normal. The jaundice had greatly increased, extending over shoulders, chest and arms. The liver could be felt below border of ribs, and there was but slight tenderness on pressure. The bile in urine had increased. By treating with acetic acid and evaporating, leucin spheres and tyrosin needles were detected with the microscope.

In the afternoon marked psychical symptoms were developed; hallucinations of sight first appeared, he saw squaws and women in his room, flowers and toy balloons in the air; hallucination of hearing and delusions then developed; delusions were largely of a depressing melancholy character; he feared that people would kill him, that his business and reputation would be ruined. He then held a prolonged conversation with his wife, who was absent. He was very restless and could not be kept in bed, would start suddenly when addressed, but would answer questions rationally. Dr. H. R. Hopkins saw him in consultation with me and recommended hydrarg. sub. chlorid, gr. v., with sodii bicarb., gr. x, every four hours until catharsis was established; also a dram dose of normal liq. ergot, and potasii bromid, gr. xx, every hour to quiet delirium. Several

movements of bowels were produced, the *fæces* contained bile stains and at last became dark, almost black. Although four doses of bromide were given no effect was observed. Pulse at 9 P. M., 120; temperature, 100°.

Nov. 17th.—Patient more incoherent in his delirium, voice thick and tremulous like that of general paretics, exalted delusions, and staggering gait when he attempts to walk. He becomes more unmanageable, attempts to escape and even attacks attendant. Pulse 130, weak, and temperature below normal, 97½°. Carphologia developed when patient lay in bed. Stimulants, brandy and digitalis, were administered with beef tea and broth, all of which he takes without opposition. Toward evening he would at times fall asleep and stertorous breathing was observed, but he would again awake and become active. His tongue was very dry and brown, urine drawn with catheter was found diminished in quantity, pupils would not respond to light, nausea, vomiting and great thirst. Dr. Burwell was called and observed that patient's strength was rapidly waning, could suggest nothing in the way of treatment except stimulation, and prophesied speedy death. He agreed with me in the diagnosis of acute yellow atrophy. The patient's strength ebbed slowly during the night in spite of all efforts to stimulate the heart, coma vigil came on, the profound coma, singultus, black vomit due to gastric hæmorrhage, collapse and death at 8 A. M., ten days after the appearance of first symptoms and forty hours after beginning of second stage of disease. During this second stage when atrophy of liver is most rapid, an accurate physical examination was impossible, on account of meteorism, but the liver could not be felt below border of ribs.

The case is interesting on account of its rapid course and the fact that it was ushered in with symptoms of biliary colic. Whether the disease resulted from obstruction of the ductus communis choledochus, or was secondary to some pre-existing disease of the liver cannot be determined. Cases of acute atrophy following prolonged obstruction of bile ducts are on record, but none following acute obstruction have been reported.

INTUBATION OF THE LARYNX FOR CROUP.

By HENRY D. INGRAHAM, M. D.

Professor of Diseases of Women and Children, Medical Department of Niagara University.

In the October number of this JOURNAL I reported two cases of intubation of the larynx for diphtheritic croup. Both patients were then wearing the tubes, and in Case I. the symptoms were favorable for the recovery of the child. This was at the end of the third day. As is usual in these cases the child was quite thirsty; was not satisfied with the ice, which was given freely, and a teaspoonful of water occasionally.

The patient begged for water, and her mother gave her a tumblerful, all of which she drank, although strict orders were given to allow but a teaspoonful at a time, and that was to be given with the patient lying on her side.

Immediately the child had a severe paroxysm of coughing and in twenty minutes was dead. No doubt she was suffocated or drowned by the passage of considerable of the water through the tube into the lungs, as when last seen by Dr. Banta and myself, a few hours before, she appeared to be much better than at any previous time.

In Case II. the child did not experience as much relief at any time as in Case I., because at the time of the introduction of the tube the disease had involved the bronchi quite extensively. This child died the third day after the introduction of the tube.

Tuesday, Nov. 2d.—I was called by Drs. Hartwig and Krug, to see a child four years old, who had been suffering from membranous croup for nine days. And although it was not expected to be of much benefit, the child being too near its end, yet the tube was inserted about five o'clock P. M. Considerable relief was afforded the child at first, but in a short time the breathing was as bad as it had been before the introduction of the tube, and at two o'clock in the morning the child died.

These three cases are all that I have seen, and although they all proved fatal, yet I believe in the utility of intubation. The relief given the little sufferers was sufficient to justify the pro-

cedure, even though they did not recover. In Case I. the relief was so marked that every one who saw the patient was thankful the tube had been introduced. The child said to us, soon after the introduction of the tube, "you are good doctors to make me feel so much better."

These cases illustrate the necessity of great care and attention in the subsequent treatment after intubation for diphtheritic or membranous croup. If the relief be as marked, as in some cases, it is with difficulty that you can convince the friends that the patient is still suffering from a very grave disease, and that it is necessary to do everything possible to aid the patient's recovery.

Another necessity to success is the early introduction of the tube. If we wait until the child is almost moribund there is nothing gained, except more or less temporary relief, which, in many cases, is sufficient to justify its use even at a late period in the disease. In the above cases wearing the tube produced no irritation nor inconvenience to the patient.

The objections to the use of the tube are :

First—The difficulty of introduction, which, in some cases, is great, yet it is not sufficient to prevent all being done to relieve the patient that is possible, especially as this is an objection on the part of the physician and not an objection upon the part of the patient or friends.

Second—The thirst of the patient and its inability to swallow liquids. With an intelligent nurse, who will carry out your directions, a child can swallow a teaspoonful of liquid at a time, when lying on the side, without any of it passing through the tube to the lungs, and this small amount, with what ice can be given, is sufficient to quench thirst, or, at least, to answer the requirements of the system. I know of no other objections to the use of the tube. The percentage of recoveries following intubation is reported greater than that following tracheotomy, and certainly the objections to it are much less.

When we can have an intelligent nurse, one who will carefully attend to the administration or non-administration of food

and drinks and conscientiously carry out our instructions, I believe the recoveries from intubation will be much greater than at present reported, and the operation come into more frequent use.

405 Franklin Street.

Translations.

BISULPHIDE OF CARBON IN PULMONARY AFFECTIONS.

By DR. JAINN GUERRA ESTAPÉ.

Translated from *Revist de Ciencias Medicas* by F. R. Campbell, M. D.

The researches of Peligot and the observations of Dujardin-Beaumetz have placed the action of bisulphide of carbon as an anti-ferment beyond doubt. Having read in a recent work by Dujardin-Beaumetz of the value of bisulphide of carbon for intestinal antiseptics, I experimented upon myself with the compound and found that it was largely eliminated by the respiratory mucus membrane. My breath gave a marked reaction with Fehling's test. This may be tested by blowing the breath through a tube into a cup containing the solution when a blackish, flocculent precipitate of sulphide of copper will be formed if carbon bisulphide is present in the expired air. In this manner I was enabled to establish the harmlessness of the drug when taken in such doses and under such conditions as I will hereafter describe. These experiments served later as a basis for a therapeutic application of bisulphide of carbon.

Three months ago a man forty-eight years of age, a wood-worker, consulted me. His wife informed me the day before the consultation that many physicians in his native place and some in Barcelona had assured her that her husband was suffering with phthisis, founding this diagnosis on a careful physical examination. She told me that his illness was of some four years duration and thought that it arose from a severe cold contracted while at his work. In view of the facts obtained I made a diagnosis of bronchiectasis. I will not describe his symptoms in detail because he presented a typical case of the disease, one which could not be confounded with pulmonary tuberculosis. The

heart was normal with the exception of a slight hypertrophy of the left heart. I decided to employ the *aqua sulpho-carbonata* recommended by Dujardin-Beaumez for intestinal antiseptis, feeling assured from my previous experiments that it would exert a favorable influence upon the fetid purulent excretions. I directed him to pour into a pint bottle the following mixture :

R _x	Aquæ,	-	-	-	-	grams 500.
	Carbon Bisulphid.	-	-	-	-	" 25.
	Essence Menth pip.	-	-	-	-	gtt. xxx.

This is to be well shaken, then allow the flask to stand a few minutes. Of this solution a tablespoonful in milk should be taken six times a day. I prohibited the use of all alcoholic beverages, since it is well known that alcohol acts upon the carbon bisulphide in the blood, forming sulphuretted hydrogen.

In six days my patient returned and I was not a little surprised to learn that he was no longer troubled with morning cough and that the expectoration had diminished while the fetor had disappeared. The medicine was continued eight days more in the same form and dose, at which time the improvement was so marked that it was perceptible on percussion and auscultation. This treatment combined with the use of tonics, always excluding alcohol, was continued two months when the patient had improved so materially that he returned to his work.

Since treating the above patient I have used carbon bisulphide in many cases of chronic bronchitis, and one of excessive bronchorrhœa and have always obtained the same excellent result.

I have no doubt that my observations are not sufficiently numerous for the deduction of precise conclusions. Yet I hope that my success with this harmless remedy may induce others to test it in some pulmonary affections.

Medical News.

MUSIC IN THE TREATMENT OF INSANITY. — That music has sedative and stimulating powers is a fact which has been known since the days when Orpheus quelled the savage Cerberus and David quieted the raging Saul. The only wonder is that, in these days of hydropathy, homœopathy, mind and prayer cures, no school of musicopathy has

arisen. Soft, sad strains might be employed to quiet the maniacal, merry allegretto music for the cure of melancholia, while Wagner might frighten the demented so that he would begin to think again. Dr. Talcott, Superintendent of the Middletown, N. Y., State Asylum for the Insane, has evidently thought of these things and introduced music into all of the wards of his institution with excellent results judging from his last annual report from which the following is extracted: "It is said, that, before Moses dwelt upon the banks of the Nile, the Egyptians erected temples and altars for the treatment of the insane; and, among the most notable measures for the accomplishment of the cure of lunatics, music took an exalted rank. There can be no doubt that music exercises a potent influence in producing calm and restfulness in minds which are disturbed by cerebral disease. Musical instruments have been provided in nearly every ward, and the results have been most favorable. Even turbulent patients will subside when the pleasures of music are afforded to them. One of the most effective attendants we ever had upon our disturbed wards was a good musician. After his work was done, he would sit down among his patients, and play upon the violin. Immediately the most excited persons in the ward would group themselves about him, and listen with profound attention so long as he continued to play for them. Where good music can be provided for the turbulent insane, there exists but little necessity for restraint of a physical nature."

ANTIFEBRIN, A NEW ANTIPYRETIC.—Cohn and Heppe have discovered a new antipyretic which promises to revolutionize antifebrile medication. Hitherto all antipyretics belonged either to the phenol series, (carbolic acid, resorsin, salicylic acid, etc.,) or to bases analogous to quinine, (chinolin, chairin, antipyrin, thalline.) The authors have found a substance neither acid nor basic, having the formula, $C^6 H^5 N H C^2 H^3 O$, possessing a powerful antipyretic action, hence its name, *antifebrin*. Antifebrin is a white, crystalline, inodorous powder, with an acrid taste, and insoluble in alcohol. The drug is well borne by the stomach, the quantity employed varying with the severity and stage of the disease, from half a gram to two grams in twenty-four hours. It is most conveniently prescribed in twenty-five centigram doses in warm water or wafers.

Antifebrin is four times more powerful than antipyrin, since with twenty-five centigrams of the former the same effect may be obtained

as with one gram of the later. The antipyretic action usually begins one hour after the administration, reaching its maximum effect in four hours, and lasts three hours or more. After each dose the temperature becomes normal, or even descends below normal. At the same time the pulse is reduced in frequency and the arterial tension is increased. During the period of apyrexia there is a return of appetite, thirst and an increased secretion of urine. No one of the twenty-four patients on whom the drug was used exhibited any untoward symptom whatever. On the contrary all declared that they felt much better while under its influence. A few patients, however, were affected with a slight cyanosis of the extremities.

THE ETIOLOGY OF TUBERCULOSIS.—Dugnet and Hércourt, of Paris, communicated to the Academy of Sciences, an account of three patients who died of tuberculosis running a rapid course. The affected organs were carefully examined and although tubercles were abundant, neither bacilli nor zooglea were detected, but in the neighborhood of the nodules there were found fine granulations, large spores and ramifications of mycelium like those seen in parasitic mycosis, the *microsporon furfur*, from which two of the patients had just recovered. Their investigations were then extended to other tubercular cases and they claim that these mycotic organisms are much more constant in tuberculosis than the bacillus. In fact they were never absent from tubercular granulations and were found in the caseous masses, which from some unknown causes are often free from the bacillus. The mycelia are abundant in the expectoration of consumptives where the bacillus tuberculosis is equally numerous. The mycelia also found in the excretions of patients clinically considered phthisical, in whom the bacillus is absent. The development of the bacillus tuberculosis from a parasite so abundant as the *microsporon furfur*, a parasite which often exists upon the person without apparent harm, is a matter of the greatest importance, which would be of especial value in prophylaxis. The author claims that the injection of the *microsporon furfur* in rabbits will produce tuberculosis. An Italian physician, Caragnis, however, injected two grams of water containing the epithelial scales taken from a patient with *psoriasis versicolor* into a rabbit. Fifty days after the animal was killed and found perfectly healthy.

DR. A. LIEBAULT, reports to the French Academy for the Advancement of Sciences, the results of his method of treating incontinence of urine by "*Hypnotic Suggestion.*" In this manner seventy-seven patients have been treated, varying in age from three years to adult life. Of these fifty-eight per cent. were males and forty-two per cent. females. The results obtained were exceedingly satisfactory.

1. Twenty-three patients have been cured by one or more seances and the malady has not returned.

2. Twenty-three were cured by the method but no reports have been received from them since the treatment has been discontinued.

3. Ten patients were cured by prolonged treatment and are still free from this trouble.

4. Marked improvement was observed in nine cases.

5. Four patients were treated but once and have not since been heard from.

6. Eight were neither improved nor cured. This report shows forty-three per cent. of certain cases. Among those treated were three persons of an advanced age who have entirely recovered.

ACCORDING to the reports of the Registrar-General of Great Britain, the mortality rate of physicians is higher than that of those engaged in any other profession, in fact higher than the average of all occupations combined. The following are the figures giving the death-rate per 1,000:

Clergymen,	15.93
School Teachers,	19.90
Lawyers,	20.22
Physicians,	25.53
All occupations,	22.83

A SPANISH physician, G. Andradas, recommends a two per 1,000 injection of bichloride of mercury for the treatment of gonorrhœal cystitis. An ounce and a half of this solution is injected and retained for three minutes. After two or three days an injection of larger quantity may be employed. The injection causes considerable pain on micturition.

DURING the year 1885-86 there were 14,633 students in the Italian universities. Of these, 5,195, or 35½ per cent., were medical students.

THERE are but three dispensaries in Paris. New York, with half the population, has five times that number.



Julius F. Miner

Editorial.

JULIUS F. MINER, M. D.

After a prolonged illness of several years, Dr. Miner died at his home in this city, Nov. 5th. He was beloved and respected by this community and by the medical profession. We can safely say that few physicians ever lived in this city who had the confidence of all to such a degree as did Dr. Miner. Even now after five years his place as a surgeon has hardly been filled; such skill and judgment as he possessed are rarely seen. As a teacher and an editor he won the plaudits of the profession. For many years he was the editor of this JOURNAL, and in addition to carefully prepared editorial matter, he added many original articles to its columns. Throughout his long and wearisome illness he was patient and hopeful. For over a year he had been quite comfortable, was able to read, and enjoyed hearing of affairs going on about him. When death at last came it was sudden and wholly unexpected. He passed away quietly, full of hope for the future life.

Dr. Miner was born in Peru, Berkshire Co., Mass., Feb. 16, 1823; educated at the Mountain Seminary, in Worthington, the Williston Seminary in East Hampton. He was graduated from the Berkshire Medical College, in Pittsfield, Mass., in 1846, and from the Albany Medical College in 1847. He came to Buffalo in 1855, where he has since resided and practiced. In April, 1869, he made the first operation for ovariectomy by enucleation, and in June published the method of procedure. He also ligated the external iliac for aneurism, successfully amputated at the hip joint; removed the thyroid gland for cystic bronchocele; removed popliteal aneurism by extirpation; removed the spleen, and performed most of the capital operations, full reports of which are found in the BUFFALO MEDICAL AND SURGICAL JOURNAL.

The Erie County Medical Society met, Nov. 7th to express in words the grief it felt in its loss. Dr. Rochester, a life-long friend, read a most appropriate memorial which is given below and contains many facts not already mentioned:

Julius F. Miner, M. D., passed quietly away, as the day was breaking on the 5th of November, 1886, in his sixty-fourth year. To the speaker this sad and significant event is most touching and impressive. It is the ending of an intimate social and professional friendship of over thirty years and of connection as hospital and college colleague for nearly as long a period. This experience, of more than a quarter of a century, is filled with bright and pleasing remembrance save only of the later period of sickness and suffering which he was called upon to endure, and even these could not quench or even obscure the enthusiasm and facetiousness with which he was most remarkably endowed. We are assembled here to honor his memory, and to pay this tribute of respect to which he was so fully entitled as a warm-hearted, generous man, and as a most distinguished and prominent and benevolent physician and surgeon. He came to this city in 1855, and so soon and so well did he establish himself, that he was made surgeon to the Buffalo General Hospital in 1860, subsequently the scene of so many of his brilliant and successful operations, and where he evolved and put in practice his system of enucleation for the removal of ovarian and other tumors, with which his name is associated the world over, and of which he received the most flattering recognition at the International Medical Congress, held in Philadelphia in 1876, where he expounded it, and attracted more attention and commendation than any other person on any other subject. He succeeded Prof. Sanford B. Hunt in 1861 as editor and proprietor of the *BUFFALO MEDICAL AND SURGICAL JOURNAL*, first established by Prof. Austin Flint, and conducted it for many years, until compelled by impaired health to transfer it to other hands. In 1867 he was elected to the chair of ophthalmic and surgical anatomy in the medical department of the University of Buffalo, and in 1870 to that of special and clinical surgery, dividing the honors of the position with the eminent Prof. E. M. Moore of Rochester. In 1870 he was also made one of the surgeons to the Sisters of Charity Hospital. Dr. Miner was an active and influential member of the city and county medical societies, of the State Medical Society and of the American Medical Association, and always attracted much attention by the force and originality of his views and methods, which were, however, always practical and conservative. He delivered his last course of lectures

in the session of 1881-82. When in the midst of his active and useful career he was stricken with paralysis, and since then has mostly been confined to his house, and for the last three years to his bed. For many years previous to this, his locomotion had been considerably impaired, but with steady hand and resolute will he continued to do an immense amount of labor and probably had as large a surgical practice as any person could possibly perform. He possessed that property, which is called personal magnetism to a remarkable degree, he had many office students, and the relation that existed between him and them, as well as with the students at the Medical College, was paternal and filial to a remarkable degree. "His boys" as he delighted to call them were devotedly attached to him, and his professional sons in all sections of this broad land will mourn as for a father gone when they learn of his demise. Gentlemen of the Erie County Medical Society; we have been called to part with a member and an associate who was an honor to us, and an honor and a great staff to the community in which he lived. Let his memory live in our hearts. Let us spread a record of our love and esteem upon our minutes. Let us send to his bereaved family our most heartfelt sympathy and condolence and let us attend his funeral in a body.

Dr. Rochester said that, in his brief memorial, he had tried to write in such a manner as would have pleased Dr. Miner himself had he been alive. "He frequently expressed himself to me," said the speaker, "as strongly against the reading of long memorials and eulogiums on occasions like this. So I have tried to sketch briefly only the salient points of his character."

Dr. Edward C. W. O'Brien, who was one of the dead surgeon's closest companions and most intimate friends, spoke as follows:

Mr. Chairman:—Among all the members of our profession in this city, probably there are not many who had the honor of a more intimate acquaintance with Dr. Miner than myself. If not, strictly speaking, one of my early preceptors, he was my friend from early manhood, one to whom I have been, and am, most deeply indebted; who gave me invaluable advice, not only in regard to the duties which would devolve upon me in the path of life I had chosen, but counselled me on general affairs, even, I had almost said as a father would counsel a son. Always accessible, never repellant, ever willing to

give from his bountiful store of knowledge, to those less favored than himself, he may truly be said to have been the young man's—particularly the young physician's—friend; by whom, in turn, he was truly loved and highly respected. Dr. Miner fully deserved the brilliant professional reputation he had attained. A man of great natural ability, of deep study, and of wide experience; it is no wonder that he came to be looked upon as one of the bright and shining lights of the medical profession. Noble in character and presence, he always commanded attention and admiration in whatever circle he appeared. His reputation as a surgeon had become national long before he was overtaken by his disabling illness, and his remarkable skill and wisdom were so well known that hardly a day passed, before he was stricken down, without a call upon him by even the ablest members of our profession in this portion of the state for aid and advice in cases likely to baffle human skill. His charity was large, his friendship was sincere and his heart was big and honest. He gave freely to the poor—never turning a deaf ear to the cry of distress, or refusing his professional aid to the stricken and needy. His sense of honor was as fine and keen as that of any man who ever won a medical diploma. This trait of Dr. Miner was so well known and thoroughly appreciated as to frequently call forth the remark: "Dr. Miner could not be dishonorable under any circumstances."

Fortunate, indeed, will be the physician or surgeon who may in the future, so nobly win, and so richly deserve the admiration, confidence and affection of the local members of the medical fraternity as did Julius F. Miner.

Dr. Lucien F. Howe said that on many similar occasions the old admonition to say nothing of the dead but good might well be altered for the sake of truthfulness to *nil de mortuis nisi verum*. But for Dr. Miner, fortunately, both the maxims can be harmonized with honest severity. Regarding him from the standpoint of a surgeon, he could be spoken of as one of the oldest, as he was one of the most successful and prominent in the profession. His identity with the two large hospitals and a medical college of this city, if nothing else, would be sufficient to make him eminent. These institutions, which he either helped to found or so greatly strengthened with his zeal and untiring energy that they remain to-day, are the lengthened shadow of the man who is gone. His work as editor on

the BUFFALO MEDICAL AND SURGICAL JOURNAL made the paper the exponent of professional thought for this section of the country. Dr. Miner's strength of character and untiring energy were told of and it was said that to the honor of the man, in medicine he was venerated as an authority. With his dominating characteristics it may be said truthfully that he can appear before the bar above, standing there like an honest man, with no mask upon his face and no shackles on his conscience.

Dr. John Cronyn, who had been associated with him in work at the Sisters's Hospital for years, spoke in a most feelingly and tender manner of his former colleague.

Remarks were also made by Dr. P. H. Strong, Dr. William Ring, Dr. Wall, Dr. Harrington, Dr. J. C. Greene, Dr. Phelps, Dr. Barnes, Dr. Bartlett and others.

The society attended the funeral in a body. There survives him his loving and faithful wife, a married daughter and a son, Mr. Worthington C. Miner, of this city, a lawyer of marked ability.

We are glad to be able to present to our readers this fine engraving of the Doctor, which will be treasured by many who were wont, in their college days, to look upon Dr. Miner, as their trusty friend, and who are yet proud to remember that they were, as he was accustomed to designate them, his "boys."

It is sad to reflect that the men who made the college with which they were connected famous, have, one by one, departed to the great majority, and of them all our distinguished friend Dr. Rochester alone remains.

Who will take their places?

ADVERTISING OPERATIONS IN THE DAILY PAPERS.

The New York *Medical Record*, commenting upon the suggestion of the committee on ethics, of the Medical Society of the County of New York, concerning repression of the growing tendency to publish surgical operations in the newspapers, says that such action is timely and should receive the unqualified support of every practitioner of medicine and surgery. "The names of every one of those who have heretofore winked at this breach of propriety and good sense are well known, and whenever the subject is brought up, they are promptly enumerated as the recognized violators of what honorable professional gentleman endeavor to sustain and maintain. These trenchers upon the good name of the profession can, with perfect safety, assure themselves that they do not occupy an enviable position." Of late years, thanks to the support which the JOURNAL has received from the better element of the profession, in our efforts to suppress the introduction of newspaper advertising, Buffalo, has been comparatively free from this evil, but it is a growing tendency and we find our editorial confreres in other cities "applying the lash" to these offenders with a good deal of vigor. Even staid and respectable old Baltimore has its surgeons who are attended by the ubiquitous and gifted reporters, who, without any medical education, is still able to give all the details of an operation in terms glowing with extravagance, if not inaccuracy. From an editorial in the *Maryland Medical Journal*, we quote as follows: "We profess to abhor and discountenance the 'red-handed quack,' but the scale by which he is measured slides more easily year by year. The aforesaid rosy individual advertises in the proper columns that he can cure any or a large number of diseases and he pays for his advertisement. In another column of the same paper we may read that 'Professor A., ably assisted by Professors B., C. and D., performed, with great skill, a very difficult operation, the only one of the kind ever done,' or the removal of an enormous tumor by Dr. So-and-so; patient doing remarkably well." Now these gentlemen *who had nothing to do with the insertion of this item*, may read it in the

morning papers with great complacency, whether they recognize or not the fact that this is the most subtle, the most skillful and often the cheapest mode of advertisement.

We think we cannot urge too earnestly upon the members of of the profession, the importance of this matter, which, while it seems of so little moment is yet capable of such great abuse. Physicians should see to it that such items as those spoken of *do not* get into the daily papers. Of course in police and accident cases the mention of the attending physician's name is often unavoidable, but surely there is no excuse for the daily notice that "Dr. — reports his patient better." Much less offensive, but at the same time we think, open to criticism, is the advertisement of public institutions, in which the names of medical men prominently appear. It is for the benefit of such institutions that the public should be informed that they are attended by well-known and skillful physicians—but it cannot but be annoying to such men to see their names placarded upon the public highways. In connection with one of our city hospitals such an advertisement has recently appeared bearing the names of doctors who occupy a foremost rank in the profession, men, too, who have been singularly free from any suspicion of advertising tendencies. We learn that, at the request of the medical men concerned, this advertisement was promptly suppressed. It is only by thus avoiding even the "appearances of evil" that we are able to strongly and consistently condemn the advertising doctor when he appears in the ranks of the profession.

DR. FRANK H. POTTER.—Dr. F. H. Potter, of this city, left some time since to continue his studies in diseases of the throat and nose with Dr. Shurly, of Detroit. He will have there a most excellent opportunity to learn this branch, which will be his chosen specialty. The doctor has already had opportunity to study this department at home and in Europe, with the addition of several month's training under this celebrated laryngologist, he will be well qualified, and find in Buffalo, where he has many friends, both in and out of the profession, a good field for his labors.

THE NEW YORK STATE MEDICAL ASSOCIATION.—This Society held its third annual meeting in New York last month as announced. The number in attendance was considerably less than last year, but the work accomplished was fully as satisfactory and of a highly scientific order. The papers announced were nearly all presented and were in good order to go to the publishing committee. This committee, of which Dr. Cronyn is chairman, hope to be able to issue the complete volume of the transactions in three months. It will contain many valuable contributions. Dr. Isaac Taylor, of New York, was elected president.

THE *Scientific American*, published by Munn & Co., New York, during forty years, is, beyond all question, the leading paper relating to science, mechanics and inventions, published on this continent. Each weekly issue presents the latest scientific topics in an interesting and reliable manner, accompanied with engravings prepared expressly to demonstrate the subjects. The *Scientific American* is invaluable to every person desiring to keep pace with the inventions and discoveries of the day.

COLDEN'S LIQUID BEEF TONIC—This excellent preparation has become deservedly popular with the medical profession, in the treatment of diseases where an agreeable article of diet and tonics are required. It is recommended in *typhoid and malarial fevers, consumption, loss of appetite and debility* induced by any cause, and it is tolerated when other forms of animal food are rejected. We invite those who have not used it to try it.

THE *Archives of Gynæcology, Obstetrics and Pædiatrics*, New York, series of 1886, just completed, has met with such warm encouragement, the publishers have decided to issue monthly, and, commencing January, the parts will so appear, instead of bi-monthly as heretofore.

DR. MYNTER'S LETTER.—We regret to say that an interesting letter from our friend Dr. Mynter, from Copenhagen, has been crowded out of the last two numbers of the JOURNAL. The Doctor is in excellent health and making the most of his time in study and research.



VOL. XXVI.

JANUARY, 1887.

No. 6

Original Communications.

ALEXANDER'S OPERATION.

By HERMAN MYNTER, M. D., Surgeon Buffalo General Hospital.

The Alexander operation, also called the Alexander-Adams operation (after Alexander in Liverpool and Adams in Glasgow) is still new, and rather without precise indications. It consists in shortening the round ligaments, and was proposed for retro-deviations and prolapse of the uterus by William Alexander in 1884. (The treatment of backward displacements of the uterus, and of prolapsus uteri by the new method of shortening the round ligaments, London, 1884). I have lately had an opportunity of seeing it performed by Prof. Studsgaard in the first surgical ward at the Commune Hospital, and as his case offers an unusual complication, I will, with his permission, add it to this short paper.

The operation, strictly speaking, is of French origin, as Tillaux says, the originator being M. Alguie, who shortened the ligaments in prolapse of the uterus to prevent the uterus from falling down, and Aran, who used it for retroflexion, believing that the role of the ligaments was less to suspend the uterus than to hold the fundus uteri forward.

Alexander's attention was, in 1879-81, attracted by the large number of cases of displacement of the uterus in the gynæcological ward of the Liverpool Workhouse. Prolapsus uteri was the most common, and next in order of frequency to retro deviations. Most of these cases from time to time, as it usually goes, had been treated with pessaries of different forms, but generally they could be tolerated only for a short time or not at all. The uterine complaint was the grand excuse to secure exemption from work and admission to the hospital. Alexander had formerly performed the usual operations on the vagina and perineum for prolapse, but was not satisfied with the results. He also had thought of stitching the uterus to the different parts of the pelvis, an operation which in the last number of *Centralblatt für Gynæcology* has been recommended by Olshausen, but at last his attention was called to the round ligaments, and, on Dec. 14, 1881, he operated successfully on a case of prolapsus uteri by pulling up and shortening the round ligaments. Since that time the operation has been performed a number of times, both in America and Europe, and I shall try, in this communication, to give your readers a short resumé of the different opinions in regard to its indications and contra-indications, technique and results. I have had the opportunity of performing the operation a number of times on dead bodies at the mortuary of the Commune Hospital.

Anatomical Relations.—According to Hule, the round ligaments (ligamenta teres uteri) take their origin from the upper angles of the uterus, one on either side, immediately in front of the Fallopian tube, proceed upwards and forwards towards the internal inguinal ring, pass through the inguinal canal and terminate, with most of their fibres, in the mons veneris and labia pudenda. A few of the fibres may be followed down to fascia pectinea and symphysis pubis. In the first part of its course, the ligament cannot be distinguished from the muscular fibres, which radiate out in the broad ligaments from the corpus uteri, but they soon gather together and form a cord five to seven millimeters thick, which,

besides areolar tissue and vessels, contains plain muscular fibres like those of the uterus, from which they are prolonged. The ligaments are covered by the peritoneum in their whole length, being situated in a fold of the broad ligament. In the upper half of its course it is strongly united with the peritoneum, while the connection is very loose in the lower half. Sometimes in its course through the inguinal canal it is accompanied by a fold of peritoneum, a true *processus vaginalis peritonei* in the foetus, called the canal of Nuck. This canal is generally obliterated in the adult, but sometimes remains pervious to advanced age. Besides areolar tissue, vessels and organic muscular fibres, it contains whitish, shining fibrous filaments, the whole forming a semi-transparent, loose, brownish cord, as thick as a goose-quill. Some muscular fibres from the abdominal muscles, through which the inguinal canal passes, are added to the lower end, being an analogue to the cremaster muscles in the male. The part outside the inguinal canal consists mostly of connective tissue and fibrous filaments, is very delicate and apt to be destroyed by inexperienced operators, hence Alexander advises always to grasp the ligaments in the canal and never by the terminal fasciculi.

Alexander says, that in ordinary healthy individuals the round ligaments lie so loosely behind the peritoneum that that structure is scarcely disturbed by pulling the ligaments out, while in cases where pelvic cellulitis has taken place and adhesions have been formed, the round ligaments may fail to run, and they are found atrophied and brittle, caused by diminished vascular supply, from the constrictive influence of the cellulitis. The surgeon may, therefore, from the appearance of the ligament, judge whether it is judicious to continue the operation, as the ligaments in that case either will break in the canal, or rupture of the adherent peritoneum be produced. I have seen both things occur in operations on the dead, and that in cases where there was no signs of previous cellulitis. A large fold of the peritoneum is always drawn out with the ligament, the result of its strong connection with the upper half of

the broad ligament, so large that in every case I have been able to pass a good-sized catheter through the inguinal canal from the abdominal cavity.

Alexander reports twenty-two cases operated by himself, and twenty-seven cases by other operators; eleven cases had prolapse of the uterus, eleven retro-deviations. The result was most satisfactory. In two of them but one ligament was shortened, but the result was just as good. In one case, which, on account of hystero-epilepsy, had had successively both arteriæ vertebrales ligated, the fits disappeared and the patient gave birth to a healthy child two years later. She had had no fits during those two years.

In one case, he removed the diseased left ovary through the wound, as it was easily pulled into the wound by the aid of the round ligament. In another similar case the same proceeding was tried but failed, the ovary being adherent. Alexander therefore prefers, for such cases, the usual oophorectomy, especially as much irritation is caused by this method, with considerable suppuration and slow healing of the wound.

Franzis Imlach, in Liverpool (see *Centralblatt für Gynæcology*, Nov. 17, 1886,) has made the operation thirty-six times; in nine cases on account of severe prolapse. Three of these nine cases were more than sixty years of age, with the result that one was perfectly relieved, another, who, before the operation, could not tolerate a pessary, was now able to wear a pessary, and felt well with its aid; the third, who had a large cystocele, continued to have trouble. Of the six younger patients, five were perfectly relieved, the sixth continued to complain of dysmenorrheal pains; twenty-seven cases were operated on account of retro-deviations (versions and flexions). In all those cases (16 out of 27), in which the deviation was not complicated with inflammatory conditions, the result was most satisfactory and the uterus continued to maintain the normal position. In only three cases there was no improvement, and these had chronic inflammation of the ovaries and tube. A number of cases, which, before the operation, continually

miscarried, carried, after the operation, the embryo to full term.

William Polk, New York (see *N. Y. Medical Record*, July 3, 1886,) reports 15 cases. He is, thus far, satisfied with the results. One of his patients became pregnant later, and carried the child to full term without trouble. In another case he was compelled, from other reasons, to perform laparotomy ten months after the operation, and he found the uterus in good position.

Paul Munde' has reported six cases, two of which were successful, one partly successful; while he, in three cases, could not find the ligaments.

Dr. James Allan (the *Lancet*, June 7, 1884,) relates a case in which the operation was performed on account of prolapse of the uterus and mental disturbance at the monthly periods. Eighteen months after the operation the patient remained in good condition, the menstruation was normal, and she had no mental disturbance.

Sinclair also reports a successful case (see *Edinburgh Medical Journal*, September, 1885,) for prolapse of the uterus. The patient was 49 years of age; four months after the operation the uterus was anteverted, and a pessary was not necessary.

Halliday Croom reports, in the Edinburgh Obstetrical Association, a case in which an operation was performed on account of retroversion. It took him one hour to find one ligament, and he did not try to find the other. Nevertheless, the uterus continued in its new (normal) position, and the troubles were relieved.

Skene Keith has also operated once, and he joins Croom in the opinion that the operation is very difficult. Probably they both hunted after the terminal branches of the ligament, as he afterwards says that it is easy to find the inguinal canal and the ligament in it. His operation lasted one and a half hours. The uterus kept in anterversion for nine weeks, and then relapsed.

Leis (in Eufurt) has operated twice (see *Centralblatt für Gynaecology*, Nov. 29, 1886); once on account of subinvolution after miscarriage, in the fourth month. The result was good, although the uterus continued to be slightly prolapsed. The other case has not used any pessary for eight weeks, and the uterus continues in its normal position.

Rjasenzew (see discussion in St. Petersburg Obstetrical and Gynaecological Association) reports the result of seven cases, operated upon by Prof. Slavjansky. One case (prolapse, with retroversion,) was completely cured, as also were three cases of retroflexion. The operation was unsuccessful in two cases (one prolapse, and one retroflexion), and could not be finished in a third, for reasons not mentioned. As he considers the operation very difficult, the probability is, that he has not attempted to find the ligament in the inguinal canal, but has followed up the terminal fasciculi.

The case which has been operated on by Prof. Studsgaard, in Copenhagen, offers an unusual complication. The patient was an unmarried servant, 29 years of age, who, for about one year, had complained of difficulty when her bowels moved. The uterus was found strongly retroverted, but movable, and forming a strong prominence in the rectum, which increased when she bore down, and formed a kind of valve. Alexander's operation was performed on October 10, 1886, by aid of an incision across the mons veneris, from the ends of which an incision was made on both sides, in the direction of the canales inguinales. The round ligaments were found with greatest ease in the canals themselves, isolated and shortened about two inches, during which proceeding the left ligament broke, but the end of it was caught in the canal, and drawn out and sewed to the fascia with cat-gut. A fold of the peritoneum, which was drawn out with the ligament on the right side, was ligated, and cut off. The wound was closed with silk sutures, and a bandage of sublimatized cotton applied.

Oct. 11th—Retention of urine, which contains some blood; vomiting.

Oct. 13th—Severe pains in the abdomen.

Oct. 15th—Secretion of urine, through a fistula communicating with the incision on the right side; considerable secretion of pus from this side. A catheter was introduced into the bladder, and left in situ. She has no more trouble when her bowels move, and the uterus stands in slight anteversion.

Oct. 30th—She urinates voluntarily now, the fistula being almost closed.

Probably a part of the wall of the bladder was drawn out with the fold of the peritoneum, and enclosed in the ligature. I can see no advantage in the transverse incision made, although, as was expected, it healed by first intention.

Technique.—Alexander makes, after the bowels and bladder are emptied, and the pubes shaved, an incision, upwards and outwards from the pubic spine, in the direction of the inguinal canal, one or two inches in length, according to the amount of fat found. The external abdominal ring is now to be looked for, and, if not at once found, will be easily found by searching for the oblique fibres crossing it, and for a small quantity of fatty tissue issuing from its inner end. The landmark is the pubic spine, at which the outer or inferior pillar of the ring is inserted. Immediately inside this, the annular externus is found.

The oblique fibres crossing the external abdominal ring should next be cut across in the direction of the inguinal canal. A reddish tissue now bulges out, mixed with more or less fat. This is the end of the ligament—as a ligament just before it spreads out. An aneurism needle is now passed under all this fatty tissue, so as to raise it out of the canal and allow it to be grasped by the fingers. The ligament should now be gently pulled out, and all bands connecting it to the pillars of the ring or to the neighboring structures, should be cut through. The accompanying nerve, the genito-crural nerve, should also be cut through. In tearing the ligaments from their inguinal connections, some risk is run of breaking

them, but when these adhesions are overcome, they pull with ease.

The uterus should now be placed in position with the sound, and the ligaments are then pulled out until they are felt to control the position of the uterus. Alexander warns against dragging the uterus into position by the ligaments. In backward displacement, he tries to put the uterus in a normal position; in prolapse, he pulls out the ligaments as far as they will come. They are then fixed to the pillars with two cat-gut sutures, passing through both pillars and the deepest part of the ligament; the wound is united with sutures, and bandaged.

A suitable Hodge pessary is to be introduced in the vagina, and the sound withdrawn. The patients are advised to lie well over on their side, the prone position being impossible to maintain. The wounds rarely heal by first intention, and the patients are kept in bed for twenty-one days. A couple of weeks later the pessary is removed, and the patient discharged.

In some aggravated cases of retroflexion, a stem pessary is necessary in addition to the Hodge pessary, for some time.

Imlach uses a very short incision ($\frac{1}{2}$ inch), which Alexander cautions against.

Gardner seeks for the fan-shaped distribution leading to the ligament, which is then caught in a forceps. The uterus having been replaced, *per vaginam*, the ligaments are drawn out 8–10 centimeters, and tied together over a tampon of Iodoform gauze. The ligaments are then fastened to the skin with cat-gut, a drainage tube introduced under the ligament, and the wound closed.

Performed in this way, the operation is very difficult; while, if the oblique fibres are cut through, and the ligament is caught in the inguinal canal, it is a very easy operation. The nerve, the genito-crural nerve, prevents the ligament from being drawn out unless it be cut through, and if this is neglected, and force be used in pulling, the ligament will break before the

nerve does, which I have seen in a number of operations on the dead body.

Indications and contra-indications.—The operation has been criticised by many gynæcologists as unnecessary, as we have many other operative methods to relieve these troubles, but just this fact shows that there is room for improvement. It is not applicable to every case of retro-deviation or prolapse, as Alexander himself points out.

He considers the operation contraindicated in cases in which the uterus is so adherent that it cannot be replaced by the sound, and in cases in which pelvic cellulitis has once occurred, as the round ligaments cannot then be drawn out, even if the uterus can be replaced by the sound. But there are cases enough left where it may be done. According to Dr. Lohler, in Berlin, backward displacements of the womb form about one-fifth of the cases which come under the attention of the gynæcologist. Out of 240 such cases he had only four recoveries, by aid of pessaries, while Dr. Münde' recorded eight recoveries, by pessaries, out of 403 cases, and that, I believe, agrees with the experience of most physicians.

Some cases, as Alexander says, are completely relieved by pessaries, even if they are not cured, and here the operation is not indicated. About two per cent. are permanently cured by pessaries. In many the symptoms subside in the course of time, so that they can lay the pessary aside. But there are still many left who have no end of trouble from the use of pessaries; yes, in which they cannot be tolerated, who become nervous, hysterical, and are a continuous trouble to themselves and those around them, wandering from one doctor to another.

Just for such cases Alexander's operation is a boon, especially as it scarcely can be called a difficult one, if performed according to the rules he has laid down, and as there is scarcely any danger connected with it.

Imlach considers the operation chiefly indicated in those cases of retro-deviation in which the ovaries are dislocated, and,

therefore, painful; while, if the primary trouble is found in the ovaries and tubes, the retro-deviation is a matter of secondary importance, and its correction would not benefit the original trouble, against which the treatment must then be directed.

Leis (in Eufurt) says, in *Centralblatt für Gynecology*, Nov. 29, 1886, that the operation is not frequently performed in Germany. He considers it an objection, that, even after a successful operation, pessaries must be introduced to keep the portio vaginalis uteri backwards, and so give the weakened retro-uterine ligaments an opportunity to contract. We might truly say, that, if the operation only made it possible for patients to get along with the aid of pessaries, its performance was indicated in a number of cases, even if no cures were attained.

Winckel (in Munich) does not consider the results, so far, either particularly good or promising. The successful cases, he says, have not stood the test of time yet, and the anteversion produced is as much a deviation as the retro-deviation, and may, possibly, give as much trouble. The real cause of the retro-deviation, the weakened condition of the sacro-uterine ligaments, is not helped by the operation, and pessaries are as much necessary as before. He believes that the operation, in a short time, will become obsolete. He has the same opinion in regard to its performance for prolapse.

The objection to the anteversion produced is not correct, as it is not the intention to produce an anteversion in retro-deviations yet, as it is the fault of the operator who has shortened the ligaments too much. In regard to his objection to pessaries, the same may be said as previously, that much is gained if a patient is put in the position for wearing a pessary. Leis mentions a case in which the patient suffered from descensus uteri, retroflexion and lacerated cervix. Nothing helped her, neither bandages nor pessaries, nor Emmet's operation, and, as swelling and pains of the ovaries occurred, the operation was performed with the result that she was able to wear a pessary,

and she felt well when the case was published, six weeks later. It is, to be sure, rather early to publish it, and the improvement may not continue.

While, in backward displacements, the sound ligaments should only be shortened sufficiently to keep the uterus in the normal position, Alexander advises, in prolapse, to shorten them as much as possible; produce anteversion of the womb. It is by all considered a *conditio sine qua non* that the perineum shall be intact, and by others, that it shall be a pure prolapse, uncomplicated by supra-vaginal elongation of cervix.

Lastly, it must be remembered that the operation can only cure diseases dependent on malposition and displacement of the uterus; if the uterus falls backwards again, then the operation is at fault, but if the uterus keeps in its new (normal) position, and the symptoms continue in spite of this, then the diagnosis is faulty, and the surgeon, not the operation, is to be blamed.

COPENHAGEN, November 10, 1886.

SOMETHING OLD AND NEW IN THE TREATMENT OF ACUTE DYSENTERY.

By B. A. FORDYCE, M. D., Union Springs, N. Y.

I can better illustrate this announcement by reporting the particulars of a case typical of the class treated by the method claimed to be new.

It will be remembered that July and August of the past summer were noted for extremely hot days and cold, chilly nights, with heavy dews. Precisely the weather and condition of atmosphere, credited by all observers and writers upon this disease, with being the principal cause of the sporadic and often of the epidemic form of the disease. Many cases occurring at this time, in different parts of the State, were, without doubt, produced by these causes.

The disease was not epidemic in the locality of this patient, but quite a number of people in the vicinity came under observa-

tion and treatment, who had been exposed continuously to the extreme heat of the day and cold of the evening, without suitable change of clothing for change of temperature.

The case to which I refer, to show the treatment, was, in every particular, well enough marked to identify it as a violently acute form of dysentery. The patient was over sixty years of age, engaged daily, and often late in the evening, in active business during these months until the time of the attack. For two days prior to the appearance of well-marked diagnostic symptoms of this disease, he complained of languor with a sense of distension or fulness of the abdomen, not dependent upon any recognized irregularity of the digestive organs, which caused a degree of discomfort sufficient to develop uneasiness and apprehension. On the afternoon of August 26th, after a hard day's work, the first pathognomonic symptoms were noticed: A sense of coldness (not a chill), nausea and frequent desire to evacuate the bowels, attended with severe tenesmus, and without the relief usually experienced. The dejections were fluid and small in quantity, consisting from the first of mucus, mixed with blood. The urgent demand returned every fifteen or twenty minutes, and was nearly uncontrollable, while the cold sensation gradually increased, accompanied with painful dysuria. In about three hours the nausea resulted in free emesis, but without relief. Hot applications to the extremities and mustard over the stomach were applied, and morphine administered, but quickly rejected by the stomach. Then morphine suppositories were tried, but were not retained for sufficient time to give any relief. On the next day, after passing a sleepless night, one ounce of Epsom salts, dissolved in a half pint of water, was given and retained in the stomach for sufficient time to act as a cathartic. Only small movements were produced, with but temporary relief. The same sense of fulness returned, and continued with tormina and urgent desire to have something removed.

On the following day, after another night of excruciating agony, the continuance of the apparent fulness of the alimentary canal, above the diseased part, induced me to use another

cathartic—this time of castor oil, two ounces; turpentine, two drams, mixed—which was retained by the stomach, and acted freely, greatly relieving the distension and pain. I now felt quite confident of permanent relief, only to be disappointed by a return of all the distressing symptoms eight hours after. The same sensation of some solid substance in the rectum that must be gotten rid of, again became the prominent symptom. My interest in the patient had also increased, and I made a digital examination of the rectum. I found a small free space above the sphincter that would hold about half an ounce. Into this *cul de sac* the fluids in the bowel from above accumulated, and as soon as the space was filled, the tenesmus commenced, and an immediate evacuation followed. Above this space the whole calibre of the intestine was occluded with soft, pulpy, œdematous, mucus tissue, which was nearly impervious.

This condition is well described by nearly all our modern authors, viz.: Neimeyer, Bennett, Watson, Flint, Pepper in "System of Medicine," and Woodward in the second volume of "The Surgical and Medical History of the War of the Rebellion." In this last work are the reports of army surgeons, detailing the results and post-mortem examinations of nearly one thousand cases.

The inflamed œdematous condition of the mucus membrane, and consequent obstruction to passages from the bowel, being fully proved, the grave question arose, What are you going to do about it? I remembered the relief often obtained from hot water applied to inflamed surfaces, and the beneficial effects of solutions of bichloride of mercury upon ulcerated surfaces, particularly of mucus membrane, and the thought occurred to me, that if I could carry the hot water through the stricture, and above it into the bowel, allowing it to flow back in sufficient quantity to remove for a distance from above all fecal and offending matter, I should accomplish two important objects, *i. e.*, relief of pain, and prevent absorption of poisonous matter into the blood, the antiseptic properties of the bichloride aiding in this latter object. Upon this I acted, using a soft rubber tube attached to

a Davidson's syringe, passed carefully through this sensitive inflamed tissue, so as to carry the liquid above the rectum into the colon. The patient was placed on his side, with an oilcloth beneath him, and four or five quarts of water as hot as could be borne were injected and allowed to flow back with whatever substance had accumulated or remained in the bowel above. When the water returned clear, then a quart or more of the solution of bichloride, about 1 to 10,000, was injected and allowed to return in the same manner. The effect was immediate relief of pain and tenesmus. A suppository of opium, one grain, was given and retained, and, for the first time after the attack, the patient slept seven hours, awaked refreshed, could take some food, and, if perfectly still, was free from pain. In about twelve hours slight return of pain was felt, and the same treatment repeated. This treatment was continued, with the bichloride solution, four times, and the hot water alone was used for four or five days more, with suppositories of one-half grain opium, morning and night, with perfect recovery, no medicine being administered by the stomach, except one-grain doses of quinine, three times per day.

In six days all the functions of the alimentary canal were restored.

The loss of flesh in this patient, in twelve days, was twenty pounds.

This treatment was used in four other cases, but earlier in the disease, and all were promptly relieved.

It is well known that the cicatrices, from healed ulcers of the rectum, caused by dysentery, often remain to modify the form of fœcal discharges for a year or more after recovery. Several writers also mention the fact that stricture of the bowel, and cancer are produced by these cicatrices. But in all these cases the perfectly cylindrical, smooth form was acquired as soon as convalescence was established.

I have failed to find this plan of treatment mentioned by any authority. I have not tried it in chronic dysentery, but I think it is entitled to favorable consideration when it is known that so many of this class of patients, after all established

remedies have been tried, are turned over to the undertaker. This, too, taken in connection with the fact that cicatrices, produced by the action of bichloride of mercury, are soft and flexible, commends any plan of treatment that promises more satisfactory results. I should not hesitate to use it in the chronic form of the disease, where ulceration was known to exist at any time prior to perforation of the intestine.

Communications to the Editor.

COPENHAGEN, Oct. 14, 1886.

My Dear Doctor:

Among the numerous hospitals in Copenhagen there is one which strikes the visitor as unique, partly on account of its purpose, partly on account of the munificence and elegance with which it has been built and equipped by the city of Copenhagen. It is the epidemic hospital, also called the Bleydam's Hospital, from its location on the common pasture, the Bleydam. It is new, built during the years 1876 and 1883, and cost, completed and furnished, about 1,300,000 crowns, equal to about \$350,000. The hospital ground contains about twenty acres, beautifully laid out as a garden. The hospital consists of an administration building, a kitchen, a laundry, a stable, a chapel, with rooms for post-mortem examinations, and eight cottages. Two of these cottages contain rooms with but one bed (twelve rooms in each), one used for patients who enter the hospital for observation, being under suspicion of epidemic diseases, the other for pay patients of a better class. The six cottages left are each divided into two parts with separate entrances, one for men, the other for women, and contains two wards of twelve beds each, and two single rooms of one bed each, besides a room for the nurse, an office, bathrooms, water closets, etc. The hospital proper, therefore, contains 180 beds in the different cottages, but besides these five felt-tents

(Dœcker's patent) are provided, containing thirty-seven beds, so that the hospital contains in all 217 beds, which number may be increased to 300 in case of necessity (cholera for instance.) There is in the hospital eighty-five square feet of floor and 1,038 cubic feet of air for each bed. The cottages are all removed at least eighty feet from the fence, and arranged in two rows of four cottages, on both sides of the kitchen and the laundry. The space between the cottages in the same row is fifty feet; the chapel is 350 feet from the nearest cottage.

The cottages are all one-story buildings, built of brick, with a slate Reiterdach roof. The six cottages are heated and ventilated by air of furnaces, very much like a Barstow furnace. The cold, fresh air is heated in a room surrounding the furnace, and enters from there the wards. The vitiated air is removed during the winter by aid of suction force through a chimney, the heat from the furnace furnishing the force, and during the summer by aid of the Reiterdach roof, the windows of which are opened on the side opposite the direction of the wind. On this side there is diminished atmospheric pressure and a current of air will, therefore, take place outwards.

The water closets and urinals are all trapped and of improved pattern (Marino's). In the two cottages with single rooms, each room is heated and ventilated by aid of a Krarup, ventilating stove. The purpose of the hospital is partly to treat patients with epidemic diseases, partly to act as a preventive to epidemics, by receiving suspicious cases for observation. It is built principally to receive cases of small-pox, exanthematic typhus, dysentery and cholera, but, as generally only sporadic cases of these diseases occur in Copenhagen, it receives, under common circumstances, all other diseases of epidemic nature, especially scarlatina, diphtheria, measles and erysipelas, cases of which are now denied entrance in all the other large hospitals, except in case of necessity, (tracheotomy, for instance)."

From November, 1879, at which time the hospital was opened, to January, 1884, 1,926 patients were received, of

which 935 were cases of scarlatina, with a mortality of twelve, six per cent. ; 459 diphtheria, with a mortality of six, one per cent. ; 118 measles, with a mortality of seven, two per cent. ; 94 variola, with a mortality of six, four per cent. No cases of cholera have been received during that time, and but few cases of epidemic dysentery and exanthematic typhus. A large number of tracheotomies have been performed with about twenty-five per cent. recoveries.

During the year 1884, 808 patients were treated in the hospital, of which 111 died; 103 patients had scarlatina, of which four died; 120 patients had diphtheria, of which five died; 178 patients had measles, of which fifty-five (all children) died, being a mortality of thirty-one per cent.; 56 children were treated for croup; in twelve of these the croup occurred as a complication to measles, and ten of these died, being 83 per cent.; of the 44 left, 30 died, being a mortality of 68 per cent.; 163 cases of erysipelas were treated, of which eleven died, being 6.7 per cent. mortality. Fifty-three per cent. of the patients received paid the hospital for all expenses incurred; the rest were treated and cared for at the city's expense.

The medical staff consists of a physician-in-chief (Dr. Med. S. Soerensen), one first assistant physician and three internes who change every two months with the internes at the commune hospital.

To prevent the spread of epidemic diseases from the hospital to the city, or from one ward to another, the following measures are employed.

The physicians, attendants and all visitors are required, before entering a cottage, to put on a linen duster and cap, which is kept and retained in the office of the cottage. Before leaving the cottage they are required to take off the duster and then to wash their heads and hands thoroughly. No attendant is allowed to leave the hospital for any purpose whatever without first taking a bath and changing the dress.

No visitors are allowed in the hospital, the only exception being the relatives of dying patients. They have then to use

the same precautions as the attendants. The patients are not allowed to leave the hospital before they are incapable of spreading the contagion. During the four years mentioned eight patients contracted scarlatina in the hospital and six attendants were taken sick, three with variola, two with scarlatina and one with diphtheria.

To conclude, I will mention the city ordinances, which have a direct bearing upon the prevention of epidemic diseases. The board of health consists of five members—the superintendent of police, the mayor, the health physician and two members of the common council—elected for five years.

The superintendent of police is chairman and it is his duty to see that all laws and regulations are executed.

The city is divided into a number of districts, each with a city-physician, whose duties are partly to care for the sick poor, partly to watch over everything relating to the hygiene. Every physician, practicing in the city, is required by law to send a weekly statement to the health physician of all cases of contagious and epidemic nature in his practice. He is moreover required to give immediate notice of all cases of cholera, yellow fever, epidemic dysentery, exanthematic typhus, variola and pest, which diseases are always to be treated at public expense, and of scarlatina, diphtheria and typhoid fever, in the case that they are declared to be epidemic, and therefore to be treated at public expense.

It is the duty of every citizen, especially every landlord, house-owner, manufacturer, etc., to notify the police of every suspicious case known to him. The police then notifies the board of health, who then examines the case.

The board of health has power to order anybody, who suffers from the diseases mentioned, and who cannot be so isolated in his own home, that there is no danger of spreading the disease, to be sent to the epidemic hospital and stay there, till he cannot any longer communicate the disease. It has also the power to send dubious cases to the epidemic hospital for observation.

If the patient cannot be moved, the board of health may make such arrangements and take such precautions in regard to his care and isolation as it deems necessary.

It may order the tenants of houses, in which diseases are prevalent, to move out immediately, by paying the expenses. It may thereafter order the houses disinfected under its own observation or disinfect them itself, and keep them vacant as long as it deems necessary. It may order public and private schools closed; also theatres, etc. All expenses incurred by isolation, disinfection of houses, moving out of tenants, etc., are paid by the city; also all expenses incurred by the care and treatment of the diseased persons, if poor, or if sent to the epidemic hospital by order of the board of health.

I remain very truly yours,

HERMAN MYNTER, M. D.

Translations.

HISTORY OF OZONE IN THERAPEUTICS.

By DR. DEBIERRE.

Translated from *Nouveaux Remedes*, by F. R. Campbell, M. D.

According to Kuehne and Scholz, hemoglobin has the power of converting oxygen into ozone, a powerful oxydizing agent. On account of this property of the red blood corpuscles, His and Schoenbein have called them ozonophores (ozontraeger). Afterward, Schmidt discovered that the blood gave the reaction for ozone when the ozonized bodies were absent. Ranke, accordingly, supposed that the blood transformed the oxygen which it absorbed into ozone, and was thus able to produce intra-organic oxydations without elevation of the temperature.

Gorup-Besanez and Seligsohn have shown that ozone, acting upon uric acid, produces allantoin, oxalic acid and urea, *i. e.*, the same products which are found in the urine of animals in which uric acid has been injected. According to Nenki, indol becomes indigo blue under the action of ozone, just as in the human economy. Benzine treated by ozone furnishes, among other products, phenol;

a reaction which likewise takes place in the body. But these facts prove merely that the oxygen of the red blood corpuscles possessed the powerful oxydizing properties of ozone. It is in no wise proved that the oxygen of hemoglobin is ozone.

What is the action of ozonized air on the human body? Air contains $\frac{1}{4500}$ of its weight, or $\frac{1}{7000}$ of its volume of ozone. Seligsohn has demonstrated that a man can remain in an atmosphere strongly charged with ozone without injurious results. But if the proportion of ozone is sufficiently great, it acts as an irritant upon the bronchi, and produces violent laryngo-bronchitis similar to that caused by the inhalation of chlorine. It was thus that the pigeons, mice and rabbits died in the experiments of Schwarzenbach (1852) when placed in large glass cylinders containing sixty litres of ozonized air. The experiments of Boeckel, Scoutetten and Ireland confirm those of Schwarzenbach. A proportion of $\frac{1}{2000}$ of ozone in the air, says Boeckel, will rapidly produce a fatal pulmonary congestion. Birds resist its action longer than mammals. An injection of twelve cubic centimetres of ozone into the jugular vein of a dog had no effect upon the animal. When brought in contact with the blood, the ozone immediately disappears.

Binz showed that when ozone is made to act upon a solution of equal parts of albumen and guaiac, the albumen is changed; but the guaiac does not become blue. Ozone, therefore, modifies the albumen of the blood, and disappears when in contact with it.

The experiments of Huisinga (1867), Dogiel (1875) and Barlow (1879) have shown that ozone has a destructive action upon the elements of the blood; but nothing has been done to show its action when introduced through the respiratory tract. Dewar and McKendrick made the first experiments in this direction (1873). They observed that the blood of animals dying in an atmosphere containing ten per cent. of ozone was black, resembling that of animals asphyxiated. Barlow has shown that ozone depresses the nervous system, slows respiration, diminishes the absorption of oxygen, and the elimination of carbonic acid.

All these symptoms are, then, due to an intoxication by carbonic acid from lesions of the pulmonary epithelium. Air containing one per cent. of ozone will produce a fatal bronchitis in one hour. Death from respiration of ozone is, therefore, due to asphyxia caused by the destructive action of this agent upon the pulmonary epithelium,

exciting an exceedingly acute bronchitis, with pulmonary oedema. Binz (1882) reported that the inhalation of diluted ozone produced narcotic effects. But Fillopow has recently shown that this is not so.

Therapeutic Action.—Schoenbein, Clemens, Richardson and Boillot have shown that ozonized air is a deodorizer and anti-ferment. It arrests or prevents the putrefaction of animal and vegetable substances, and destroys the stench arising from the decomposition of organic matter. If air is highly charged with ozone, it becomes a germicide, but not unless the ozone is so abundant that it is irrespirable. In proportions which will admit of respiration, ozone has no germicidal or disinfectant powers. What can be the effect, then, of a small quantity of ozone in the air? Some have endeavored to show that the origin and extinction of epidemics was dependent upon the amount of atmospheric ozone. But the curve of epidemics is in no way related to the quantity of ozone in the air*.

The air of forests is rich in ozonè; but this did not prevent the North-American Indians from dying by thousands with small-pox and cholera; typhoid fever is endemic on the plateaus of Mexico and in the Rocky Mountains.

The presence of ozone in any locality is merely an index of the purity of the air, since this substance promptly disappears when brought in contact with decomposing matter, a fact which accounts for the scarcity of ozone in the air of cities. The amount is so small that its influence on the human economy is lost sight of in the presence of more powerful conditions.

The undeniable disinfectant properties of ozone have led to its use in the disinfection of hospital wards. For this purpose, Delahousee devised his ozone generator in 1862; Lender, his ozonogenic powder; Siemens and Houzeau, ozonizing tubes, etc. But all these appliances generate but a small quantity of ozone, a very fortunate circumstance, since large quantities of this substance produce broncho-pulmonary affections much more serious than the disease which they propose to cure.

The oxidizing and stimulant properties of ozone have induced some authors to administer it in phthisis, scrofula, diabetes, anæmia and chlorosis. Schoenbein, in 1850, proposed the use of ozonized oil

* Dr. Baker, of the Michigan State Board of Health, and Dr. Draper, of New York, have demonstrated that the prevalence of pneumonia and bronchitis vary directly with the amount of atmospheric ozone.—*Translator.*

of turpentine for pulmonary diseases. Seitz employed this preparation of turpentine with success, it is said, in chronic catarrh of the urinary organs, and even in hematuria and incontinence of urine. Thompson employed ozonized fatty oils in phthisis, with good results, probab'y due to the oil. Lender, and Klebs of Berlin, have used ozone as a panacea for all human ills. But the *ozonotherapy*, as advocated by them, is a humbug, since neither their ozonized water nor gaseous ozone contains a particle of that agent. Binz, believing in the sedative action of ozone, recommended its use in asthma and nervous affections. A number of winter health resorts owe their existence to his influence, but it is very doubtful if ozone had anything to do with the results obtained.

Jochheim proposed the use of ozone in the treatment of diphtheria, claiming powerful disinfectant properties for the substance.* But Grandinger of Vienna, found it worthless. In 1883, Onimus employed a liquid saturated with ozone—Braud's liquid—as a disinfectant during the cholera epidemic at Toulon. The substance will destroy the putrid smell of meat and eggs, and there was no case of cholera from infection in the wards of Bon-Rencontre Hospital where ozone was used, although numerous cases of the disease were brought there.

On the whole, we may conclude that ozone possesses very feeble, if any, therapeutic powers; that ozone, if inhaled or swallowed, cannot enter the blood as such, and even if it could, but little harm and no good would be done.

The only use for ozone is to purify the air by combining with decomposing organic matter. It is not a bactericide, but atmospheres richest in ozone are purest.

* Dr. F. W. Bartlett, of Buffalo, N. Y., employed ozone in the treatment of diphtheria prior to Jochheim.—*Trans.*

Medical News.

THE ACTION OF DRUGS IN THE MOVEMENTS OF THE STOMACH.—Motor disturbances of the stomach play an important part in the diseases of this organ. Schütz has attempted to determine experimentally the effects of various drugs. The following are the conclusions:

1. *Excitants of the automatic centres*, with exaggeration of spontaneous movements, eructin, tartar emetic, apomorphia, and to a less extent strychnine, caffeine, veratrin, chloride of barium, nicotine and pilocarpine in small doses.

2. *Excitants of the nervous extremities* with general contraction of the stomach, muscarine.

3. *Increasing muscular excitability*, followed by tonic contraction of the stomach, phyrostigmine, digitaline, scillaine, helleborine.

4. *Paralyzers of the Automatic Centres*.—No substance totally destroys the movements of the stomach. Movements are diminished by chloral, urethan, morphine, pyrophosphates of zinc and arsenic, and by nicotine and pilocarpine in large doses.

5. *Paralyzers of the Nervous Extremities*.—Atropin; ether and chloroform abolish temporarily the excitability of the entire nervous apparatus of the stomach.—*Archiv. exp. Pathologie*.

OVULATION DURING PREGNANCY.—In a paper read before the Italian Obstetrical and Gynæcological Society, in April 1886. Dr. Daniel Bajardi discussed the question of ovulation during pregnancy. Twenty-four ovaries of pregnant and puerperal women were collected from the Obstetrico-Gynæcological Institute of Florence and examined, and in all these ova in various stages of development were discovered. The smallest were in the deepest portion of the organ, the largest were located superficially. The follicles which appeared to be ready to burst were found to contain mature ova. With regard to the so-called true corpus luteum, Bajardi found one filled with coagulated blood, another contained hemorrhagic points, and in a third blood was discovered adhering to the sides of the ruptured membrane. The author therefore concludes that during pregnancy, not only do the Graafian follicles mature, but also hemorrhage takes place in them as they approach the surface.—*Il Raccoglitore Med.*

KEFIR.—Kefir, or fermented cow's milk, is now quite generally used in European countries. Quite recently a German has undertaken to introduce it into Buffalo, and is now able to furnish it to customers at 25 cents a quart. Theodorff, in *Schmidt's Jahrbuch*, reports a large number of cases of anæmia, phthisis and diarrhœa treated by this agent. The following is a summary of his conclusions.

1. Kefir increases the quantity of urine, and the solids and specific gravity diminish.
2. Metamorphosis of tissue is reduced.
3. Digestion and assimilation improve
4. Weight of the body increases.
5. Red blood corpuscles increase in number.
6. Pains accompanying chronic diseases disappear and sleep is improved.
7. It is especially indicated in convalescence from exhausting diseases. The only contra indications to its use are obesity and a tendency to apoplexy.

IN 1880, Buffalo, with a population of 155,000, had 231 physicians, or one to every 700 inhabitants. During the past six years 226 physicians have located in the city, while 13 have died and 98 moved away. There are accordingly in Buffalo at this date, 346 physicians, with a probable population of 212,000, or one physician to every 600 inhabitants. The population has increased 37 per cent. in six years, while the number of physicians has increased 50 per cent. During this time, also, the sanitary condition of the city has been greatly improved and the death rate has fallen from 24 per 1,000 to 19.8 per 1,000, a reduction of 20 per cent., with a corresponding reduction in the amount of sickness. We may therefore conclude that the average physician to-day has not more than two-thirds as much to do as the doctor of 1880, since he has but 87 per cent. as many patrons, and but 80 per cent. of the amount of sickness.

FOR CHOLERA INFANTUM.—

R	Argenti nitrat.,	-	-	-	-	gr. j
	Acid nit. dilt.,	-	-	-	-	gtt. viij
	Tr. opii.,	-	-	-	-	gtt. viij
	Mucilag. acaciæ,	-	-	-	-	fl℥ ss
	Syrupi,	-	-	-	-	fl℥ ss
	Aquæ,	-	-	-	-	fl℥ j

TREATMENT OF DIPHTHERIA.—Dr. A. Brondel, in an article published in *Le Bull. Gen. de Therapeutique*, describes a treatment of diphtheria which has been uniformly successful in his hands. *More than two hundred cases* have been treated without a single death, a record which seems incredible. He considers benzoate of soda a specific in this disease, but recommends sulphide of calcium in addition. The following is his formula :

℞ Sodii Benzoatis, ʒ i—ʒ i, gr. xv.
Aq., ʒ v.

M Sig.—Tablespoonful every hour.

Calcium sulphide, gr. $\frac{1}{8}$, is also given every hour with the potion. He also employs a spray of 10 per cent. solution of benzoate of soda given every half hour, night and day.

COCAINE IN LABOR.—Doleris applied a four per cent. solution or ointment to the vagina and external genitals, when the labor pains began. The amount of cocaine used was about two grains in each case. In this manner delivery was rendered painless in thirteen out of fifteen primiparæ. Fischel's results were less striking, but he employed weaker solutions. These observations show that the seat of the labor pains is not in the uterus, but in the dilating cervix and vagina.—*Med. Age.*

FOR CHRONIC RHEUMATISM.—

℞ Potassium iodide, ʒ j
Tr. guiaci. ammo., flʒ iij
Ext. phytolacca fl., flʒ iij
Ext. colchici. sem fl., flʒ iv
Elixr aurantii q. s. ad., flʒ vj.

AMONG the numerous remedies recommended for *sore nipples*, Prof. Parvin pronounces the compound tincture of benzoin the best, as a local application. As the saliva of the infant is liable to be productive of fissures, etc., by its irritation, the nipple should always be carefully cleansed and dried after the nursing of the child.

THE birth-rate in Buffalo during 1886 was 12 per 1,000 in excess of the death-rate.

M. DE QUATREFAGES exhibited at a meeting of the French Academy of Sciences, two skulls discovered in a cave in Belgium. These skulls belong to the quaternary geological period, the age when the mammoth and rhinoceros were native in Europe. The skulls are marked by the great thickness of the cranial bones, the size of the sinuses and the dolichocephalous conformation.

FOR the first time in the history of medicine yellow fever is found on the Pacific Coast of North America. There have been numerous cases in Western Mexico. In summer nearly the entire Pacific Coast of the United States is suitable for the propagation of the disease and an epidemic there is feared.

PROF. CARRUCIO, of Modena, has discovered worms belonging to the ascarides family in hens eggs. Two specimens were exhibited by the writer before the Italian Academy of Medicine. The parasites were examples of the *Heterakis inflexa*.

RUSSIA spends twenty-five per cent. more for the preservation of public health than for public education. "Public health is public wealth" is their motto.

DR. FERNANDEZ, of Barcelona, recommends the hypodermic injection of cobra poison for the cure of hydrophobia.

Selections.

AN ANALYSIS OF TWO HUNDRED AND FIFTY AUTOPSIES ON DRUNKARDS.

Illustrating the most prominent Anatomical Lesions of Chronic Alcoholism.

Dr. Formael, in a paper on the above subject, considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those in which there had been a history of a long-continued series of debauches, the subject often dying in one of these debauches, and did not include moderate drinkers or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought

that the exposure, irregularities of diet, etc., incident to a state of drunkenness, had much—probably more than the alcohol itself—to do with the production of the lesions; but it was not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which the cirrhotic liver with contraction held a prominent place. He had himself at one time considered cirrhosis a very frequent, if not almost necessary, concomitant of long-continued, excessive use of alcohol, and had even testified in court that a certain person was not likely to have been a hard drinker, because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors. Therefore, it was surprising to him to meet in his two hundred and fifty autopsies with only six cases of cirrhosis of the liver with contraction. In two hundred and twenty cases, the liver was considerably or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration. Cyanotic induration of the kidney and chronic gastritis, with mammillation of the stomach, were found in nearly every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease.—*Phil. Med. Times*, Dec. 12, 1886.

TREATMENT OF ACUTE RHEUMATISM.

Prof. Da Costa states that there are laid down two principal plans of treatment of acute rheumatism:

1. Salicylic acid and the salicylates. These are unquestionably the most speedy remedies, but should not be employed in those cases in which much weakness exists, for it greatly increases the sweats and depression, or in those cases where tendency to cardiac complication is manifested. In these latter it has been stated to be worse than useless.

If the acid be used, which is preferable to its salts, give not less than sixty to ninety grains in twenty-four hours. Ten grains may be given in emulsion every hour, for six hours, if borne well, and then the same doses may be given at intervals of two hours.

If the salicylates are used, give three drachms in twenty-four hours. If this plan acts at all, it will do so promptly; and if good results are not achieved by the second or third day, it had better be abandoned.

2. The alkaline plan. This consists in rapid saturation with the alkalies. It lessens the complications, but no good can be achieved by small doses. An ounce to an ounce and a half of either the bicarbonate or acetate of potassium must be given the first twenty-four hours, half as much the following day, and three or four drachms each day thereafter.

Employ until the urine becomes neutral or alkaline, and then diminish the dose as above stated.—*College and Clinical Record.*

AS TO THE EFFICACY OF COCA PREPARATIONS.

I desire to state, for the benefit of my colleagues, the results which I have obtained during my long career as military surgeon by the use of *Vin Coca Mariani*. Briefly stated, I have used it with the greatest success in profound seneemia, resulting from long, arduous campaigns in tropical countries, and in the gastro-intestinal irritation with loss of appetite and dyspepsia, which is such a frequent accompaniment of this condition. Two or three wine-glasses of *Vin Mariani* each day relieved the debility with wonderful rapidity, inasmuch as the tolerance of the stomach for nourishing food and the appetite were restored by its administration. Mariani's wine is vastly superior to the wine of quinia, since the latter, by augmenting the gastro-intestinal irritation, interferes with alimentation, and consequently with repair, thereby aggravating the anæmia instead of ameliorating it.

I have also employed it in those cases of chronic alcoholism, fortunately rare in the French army, which follow the abuse of absinthe and strong liquors. Mariani's wine, while producing primarily a certain amount of cerebral stimulation, exercised a predominant sedative effect upon the nervous system. I have, moreover, witnessed the spectacle of hardened drunkards giving up their pernicious habits and returning to a normal condition under the influence of this treatment.

I have also employed Mariani's wine successfully in the treatment of the tobacco habit. A few glasses of the wine, taken in small swallows or mixed with water, were sufficient to replace both pipes and cigars, since the patients obtained the cerebral stimulation which they sought for, albeit unconsciously.

I have also employed it in chronic bronchitis, and even pulmonary phthisis. Mariani's wine augments the appetite and dimin-

ishes the cough in both these conditions. When combating the cough, I have given it mixed with water—a wine-glass of the wine to a tumbler of spring water.

Finally, I have employed it in the convalescence following typhoid fever with the greatest success, and this in cases where the irritability of the stomach was so great that no wine, not even Bordeaux, could be tolerated.

To recapitulate: I am convinced that Mariani's wine is the most potent arm which can be placed in the hands of the military surgeon for the purpose of combating the sickness, infirmities and vicious habits engendered by campaigning and the hardships of military life. I will also state that when any other than Mariani's preparations of Coca were used, the results intended were not produced; quite the contrary: bad effects, and even unpleasant complications, were noticeable, and to this I call the special attention of the physician.—*H. Liebermann, M. D., Paris.*

CONGENITAL HEREDITARY ATONIC DYSPEPSIA.

During a practice of twenty years, I have prescribed Lactopeptine to patients of all ages, and have never been disappointed in its action when indicated. But I desire to speak in particular of its action in a case of congenital hereditary atonic dyspepsia: in an infant, to whom I began to administer this remedy on the third day after birth. Mrs. H. L. S., Langside, Miss., was delivered of a male child in whom there was manifested well-marked symptoms of atonic dyspepsia. The mother had been a victim of dyspepsia from girlhood, and had inherited the malady from her mother.

The infant was put to the breast a few hours after birth, and nursed readily; but almost immediately rejected the milk. Repeated trials all resulted in vomiting, followed by exhaustion. Other articles of food were tried, including cow's milk, etc., without improvement. The child was in great danger of starvation. On the third day, I began the administration of Lactopeptine. The effect was immediate and almost miraculous. I ordered one-sixteenth of the adult dose to be dissolved in about two ounces of breast milk (drawn from a robust, healthy wet-nurse,) and administered every two and a half hours. There was no more rejection of milk—except the usual vomiting of curdled milk, to relieve the crowded state of the stomach,

which occurred occasionally, after the first ten days. Condensed milk, cow's milk (properly diluted and sweetened), Mellin's food, boiled bread, (pap,) were, after a while, substituted for breast milk, but always with Lactopeptine. A steady improvement was manifest from the beginning, and kept up during the first dentition, which process was gone through with in a most satisfactory manner. No untoward diarrhœa or intestinal disturbance characterized this period, and, at ten months, the child was virtually cured of its dyspepsia, and could eat and digest ordinary food such as children of that age may do in good health. The parents of the child believe firmly (as I do) that Lactopeptine saved their infant.

In cholera infantum, in diarrhœa, and in all of the disturbances of the alimentary canal during dentition and early infant life, I find Lactopeptine an ever-effective and reliable remedy. In adult dyspepsia, all are now familiar with its beneficial effects; but I should be glad if the profession would be induced to try it in the vomitings, diarrhœas and dyspepsias of infancy. I recall several babies whose lives, I believe, I could have saved had I known, ten years ago, what I do now of the ready adaptability of Lactopeptine to infants, ailments.—*R. Walker Beers, M. D., in the Medical Brief.*

NITRO-GLYCERIN IN BRIGHT'S DISEASE.

The employment of nitro-glycerin in chronic renal disease, for the valuable service in dispelling or moderating uræmic symptoms, is based upon the fact that high arterial tension is the constant concomitant of uræmia. How far it is desirable to habitually employ a remedy having so pronounced an action upon the circulation as nitro-glycerin, is yet undetermined; but experience of its value in the diseases which are marked by abnormal arterial tension is accumulating. The latest contribution is by Dr. Kinnicutt, of New York, who has studied the effects of the drug in several cases, with results which harmonize with those obtained by Rossbach and Burzbinski, to which allusion is made. The continued employment of the drug in slightly increasing quantity does not only relieve headache, dyspnœa, palpitation, and other symptoms referable to the uræmic state, but is marked by an increase in the diurnal excretion of urine, together with a notable diminution in the amount of albumen in it. Cases are given where the albumen was estimated quantitatively,

and they show that in some the drug has a marked effect in its reduction. At the same time, as one shows, there is often great variability in the albuminuria of chronic nephritis, which renders it important that similar observations should be made on a large scale before trustworthy conclusions can be arrived at. The amount of nitro-glycerin administered should be just within the limit of producing any subjective symptoms. Dr. Kinnicutt's conclusions may be given in his own words: "1. That in nitro-glycerin, given in small doses and frequently repeated, we possess a powerful agent for lowering the increased blood-pressure which is very constantly associated with the development of uræmic symptoms. 2. That it has the power to control or relieve many of the paroxysmal disturbances of the nervous system which are included under the general term of uræmia; of these, headache and asthma are especially benefited by its use, the relief being more marked and continuous than that obtained either by opium or chloral. 3. That its influence upon the daily excretion of urine and serum-albumen in parenchymatous and interstitial nephritis is apparently to increase the former and diminish the latter. 4. That in the systematic and prolonged use of nitro-glycerin in appropriate doses, in chronic nephritis, we possess a means of maintaining more or less continuously a lowered blood-pressure, of often averting or relieving critical conditions, and thereby prolonging life."—*Lancet*, June 12, 1886.

THE USE OF AN ABDOMINAL BANDAGE IN THE SECOND STAGE OF LABOR.

Up to the commencement of the second stage of labor, the uterus alone is concerned in dilating the neck, but it then seems to call in aid the contraction of the abdominal muscles, and consequently both the pain and the bearing down are carried to a much higher degree. The pains are stronger, yet nevertheless the woman assists them by voluntarily contracting the abdominal muscles, and as the pains grow stronger and the pains seem to be tedious, then the woman will often call on her physician for help. I believe that this assistance can be rendered by the use of an abdominal bandage, and that by it, in the second stage of labor, we may not only lessen the suffering of our patient, but, at the same time, shorten the duration of labor. Consequently, I use the abdominal bandage for a

twofold purpose: First, to lessen the suffering of my patient. To accomplish this, I apply it at or before the commencement of the second stage of labor, making it just tight enough to be comfortable to my patient. Second, to shorten the duration of labor. To accomplish this end, I tighten the bandage when the abdominal muscles are called upon to assist the uterus in expelling its contents. In my first cases, I used simply an ordinary linen towel, which I put around the abdomen of the woman and secured with pins, which I unpinning and tightened as the case demanded. I now use a bandage which I constructed for that purpose, which resembles in shape the lower half of a corset, except I have it open on the side, making a back and abdominal piece, which I unite by means of straps and buckles. Having it open on both sides, I can adjust it more easily to fit different-sized patients.—*Welker, in Therapeutic Gazette.*

Following, Dr. Welker reports two cases in which he used the abdominal bandage above-mentioned with astonishing results. The results are: increased frequency and strength of pains in cases where pains had been slow and feeble, with consequent rapid delivery. (Theoretically, the principle of giving support to the abdominal muscles and the uterus during the expulsive stage can but add to the strength and efficiency of expulsive efforts.)

THE EFFECTS OF PETROLEUM EMANATIONS ON HEALTH.

Wielazyk has made observations upon the workmen in the Carpathian oil regions. Crude petroleum is a thick, oily, greenish-brown liquid, composed of a mixture of gaseous hydro-carbons, liquids and solids. The workmen about the wells are exposed to an atmosphere corrupted by the presence of marsh gas, carbonic acid, ethylem, hydro-carbons, carbon non-oxide, and often sulphurated hydrogen. Cases of asphyxia are not rare. The effects of long exposure to air thus contaminated are tinnitus, luminous circles before the eyes, throbbing of the temples, loss of consciousness and hallucinations. These last are frequent. One workman will hear a voice ordering him to remain at the bottom of the well, another picks up stones believing them to be gold. The action of the gases resembles somewhat the opiates. A workman slept six hours at the bottom of a well, and was angry on being awakened from a sleep so agreeable. Diseases are rare among

the workmen, acne is sometimes observed, but affections of the respiratory organs are almost unknown. Phthisis was found in only two of six hundred workmen, although many of them had a hereditary tendency to the disease. The author explains the infrequency of phthisis to the disinfectant action of petroleum emanations. Skin diseases are also rare.—*Bull. Gen. de Therapeutique.*

A REDUCING SUBSTANCE IN URINE RESEMBLING GLUCOSE.

A few days ago a specimen of urine was sent to the writer, the analysis of which revealed the presence of a substance likely to be of importance to life insurance companies and of considerable interest to individuals applying for insurance. On the 13th of this month, the agent in this city, of one of the prominent New York life insurance companies sent me a sample of urine and the following account of it. It was passed by a young man of good physique, who had, in the last three years, gained fifteen pounds in weight and three inches in abdominal girth and also was in apparently perfect health, but had been repeatedly turned down, as a bad risk, by prominent medical examiners of other first-class companies, because of the presence of glucose in his urine. As he had recently been examined by the medical staff of the agent's company, and some doubt had been raised regarding the presence of glucose in his urine and as he wished a large insurance the agent requested me to analyze the accompanying sample and communicate to him the result of the analysis. The analysis, made December 13, 14 and 15, was as follows:

ANALYSIS OF THE URINE.

Physical characteristics.—Urine sparkingly clear, light amber in color, urinous smell, acid reaction, specific gravity 1022: amount for twenty-four hours said to be 32 ounces. No sediment when received. Applicant on ordinary mixed diet, having eaten nothing unusual and taken no medicine.

Normal Constituents.—Indican and other normal ingredients of urine present in normal quantities, as determined approximately. No bile pigment as determined by sulphuric acid and nitric acid containing little nitrous acid. No albumen.

Upon standing several hours (fourteen) a very slight, flocculent, whitish sediment appeared, and the supernatant fluid began to be discolored, a reddish yellow, later a brownish-red, from its surface down.

Heller's or Moore's Test.—Upon the addition of a solution of *sodic hydrate* (1-3) the earthy phosphates were precipitated in considerable quantity and the supernatant fluid became a port wine red, later (after a few hours) almost black. This effect was hastened by *boiling*. *Nitric acid* in small quantity rather heightened the color, but in excess almost decolorized it without evolving any caramel odor. The *sodic hydrate* was proven free from lead salts, and the urine free from hydrogen sulphide. Probably from this reaction a considerable quantity of grape sugar was supposed, by some examiners, to have been present.

Boetger's Test.—Upon the addition of *subnitrate of bismuth* and solution of *sodic hydrate* in the cold, a reaction took place in the supernatant fluid similar to that above, but the subnitrate was not abnormally discolored even upon *boiling*, becoming simply a very light brown.

Robert's Modification of Fehling's Test.—Upon boiling 4-5 c.c. of Fehling's Test Fluid, as recommended by Roberts, and adding 1-2 c.c. urine there first appeared a dark, greenish discoloration rapidly followed by separation of a greenish-white sediment from a dark brown supernatant fluid. On standing an hour its sediment resolved itself into a greenish-white layer superimposed upon a mixed red and orange layer, a reaction resembling that of sugar.

Johnson's Picric Acid Test.—Ten minims of *picric acid* solution gave, according to Johnston's method, a reaction similar to that produced by one and a half grains of glucose, and twenty minims a reaction such as would be caused by two grains per ounce of urine. In both cases, however, the discoloration ensued before as well as after boiling, and the resulting color was more brown and less red than that produced by glucose.

Fehling's Test.—With *Fehling's* test a very unsatisfactory reaction ensued, for while a slight amount of cuprous oxide was precipitated, instead of decoloration of the supernatant fluid there resulted a deep brown discoloration, similar to that produced by too long boiling of the fluid in Robert's test.

Fermentation gave no result, even after thirty-six hours.

Ullmann's Saccharimeter.—The *polariscope* showed, upon repeated trials, a *lœvo*-rotation 0.2° , a rotation, although the opposite of that caused by glucose, too slight to be of value.

I hymol and *sulphuric acid* gave a light violet color.

Upon the addition of *silver nitrate*, a grayish-white precipitate resulted, which quickly blackened upon agitation.

Ferric chloride gave a faint green precipitation.

Nitric acid gave a light yellow instead of violet purple zone between its fluids.

Boiling gave a reddish purple, clear fluid.

Galippe's Test.—*Picric acid* gave the faintest possible white-cloudiness, which cleared upon boiling, and no abnormal darkening of the mixture.

The *microscope* revealed that the sediment consisted of mucus with urates and some irregular crystals, and a few pigmented granules.

CONCLUSION.

The presence of glucose indicated (shall I say to the non-specialists?) by the sodic-hydrate, copper, and, perhaps, picric acid, and bismuth-subnitrate tests, is absolutely negatived by the polariscope, the fermentation, silver-nitrate and ferric-chloride tests, and a proper interpretation of the other tests. Clearly, the question as to the presence of glucose is answered in the negative. As to the next question. What is the abnormal substance giving these reactions? I cannot answer without further analysis, but hope to supplement this by an account of its discovery. Whatever it is, it would seem to be in small quantity, and to have little, if any, pathological significance. The brownish discoloration of the urine from above downwards, and its reaction with sodic hydrate and its copper salts, would indicate a substance discovered in urine by Baedeker, in 1861, and called "alkapton." This body is, however, probably a composite one, and its further reaction with ferric chloride and silver nitrate would point towards pyrocatechol or proto-cateclonic acid, (both of exceedingly rare occurrence in its human urine) as the possible cause of the behavior of the urine. The analysis, however, is not complete. Although such is the case, two important lessons may be drawn from this analysis:—The one is that the copper and sodic hydrate tests, as generally used, are not sufficient *positive* tests for glucose, but should be supplemented by the fermentation, subnitrate of bismuth, and polariscope tests, or, in

doubtful cases, by all three; the other is that medical examiners should not lightly tell applicants for insurance that they are suffering from serious illness. For this applicant was very much alarmed by a very prominent examiner in another city telling him he was in the last stages of diabetes and absolutely refusing to recommend him for insurance.—T. Barton Brune, M. D., Baltimore, Md., in *Boston Medical and Surgical Journal*.

OVERWORK AND SANITATION IN PUBLIC SCHOOLS.

In recent numbers of the *Annals of Hygiene* appears a series of articles by Dr. Charles K. Mills, on "Overwork and Sanitation in the Public Schools of Philadelphia, with Remarks on the Influence of Overwork in the Production of Nervous Diseases and Insanity." These articles embody the substance of a lecture delivered before the Teacher's Institute of Philadelphia, and of a paper read at the State Sanitary Convention, held in Philadelphia, in May, 1886. Dr. Mills first gives the results of some personal investigations in the Philadelphia public schools. He found the system in a state of more or less confusion, the schools of different grades working under systems or methods which do not dovetail one into the other. Investigations were made in several grammar schools, and in the Central High School and the Normal School. The inquiries made included the number and kinds of studies, the number of hours of school work, of home work, and of sleep; and also as to whether the pupils suffered from any form of ill-health that could be fairly said to be due to school studies. The results show that some overwork occurs, but that improvements have taken place in recent years, the children in not a few places suffering from bad methods of work rather than from genuine overwork. The overwork is particularly marked in some of the girl's grammar schools and in the Normal School. In some schools fewer subjects should be taught. The headache, nervousness, eye-strain, dyspepsia, forms of insanity, and other affections attributed to overwork are discussed in these papers.

Dr. Mills does not advocate a school system without examinations, but believes that the systems should be arranged so that the time will be sufficient to allow each grade to be brought carefully and naturally up to certain standards; in which case an examination, with a minimum average in every branch, would be desirable.

Some investigations were made into the ventilation of Philadelphia schools. It was generally found to be bad, and sometimes execrable. The temperatures of the rooms were almost uniformly a few degrees higher than they should have been. Opportunities for exercise are, as a rule, not properly afforded, and the drainage is, in some instances, very bad.

A system of medical superintendence of the public schools is advocated, so that questions of ventilation, lighting, seating, drainage, vaccination, and attendance of children at whose homes contagious diseases prevails, would come directly under the jurisdiction of a medical director or superintendent. By such inspector or superintendent special investigations could also be made or directed, from time to time, with reference to the number of studies, hours of home work, and amount of recreation and sleep. Attention is strongly called to the fact that, if school children are sometimes overworked, it may be, to a large extent, the fault of their parents. Parents, for instance, should see to it that their girls are not driven too hard during the menstrual periods.

The influence of overwork, in the production of nervous diseases and insanity, is discussed from the standpoint of the effects of special forms of physical overwork upon the nervous system. It is shown that in certain so-called "fatigue disorders," writers' cramp and artisans' diseases, it is the continuous monotonous repetition of the forms and processes of work which brings about the results; and it is held that it is in a consideration of facts of this kind that the true philosophy of neurasthenia, or the philosophy of a true neurasthenia, becomes evident.

ANTISEPTIC TREATMENT IN OBSTETRICS.—The following is a brief summary of the rules enforced in Prof. Spaeth's Obstetric Clinic in Vienna, and contains many valuable hints that may be followed in general private practice: "Before any vaginal examination, hands must be cleansed with soap and brush, and dipped in from one to five per cent. carbolic. Examining finger smeared with three per cent. carbolic vaseline. Neither before or after examination is vaginal douche given, unless there be special ground therefor—from a bad discharge, etc. After a normal, spontaneous labor, the external genitals are washed with a one to two per cent. carbolic solution. After

intra-uterine manipulation, the uterus is washed out with one to two litres warm, one to two per cent. carbolic. After dead foetus (decomposed) or difficult instrumentation, an iodoform pencil, in addition, is used. Episiotomy wounds, if not deep enough for suture, are simply dusted with iodoform, and similarly slight perineal ruptures. During puerperium, unless especially ordered, neither vaginal injections nor antiseptic compresses. As soon as a lying-in woman has elevation of temperature, she is isolated. Each ward is carefully disinfected when empty. In case of rise of temperature, if there are wounds of the outer genitals, vaginal injections, one to two per cent. carbolic; if lochia are bad-smelling, intra-uterine douche twice daily, or else iodoform pencils. Douche is stopped as soon as lochia become normal. Continuous irrigation never used. Iodoform freely on all wounded surfaces.—*Am. Journal Obstetrics.*

MEMORIZING DOSES.—Dr. G. A. Wiggins, of Philadelphia, (*Med. World*, Aug., 1886,) gives some general rules, with their exceptions, which are thoroughly reliable :

1. The dose of all infusions is 1 to 2 ozs., except infusion of digitalis, which is 2 to 4 drs.
2. Dose of all poisonous tinctures is 5 to 20 minims, except tincture of aconite, which is 1 to 5.
3. Dose of all wines is from $\frac{1}{2}$ to 1 fl. dr., except wine of opium, which is 5 to 15 minims.
4. Of all poisonous solid extracts you can give $\frac{1}{2}$ gr., except extract of calabar bean, which is 1-16 to $\frac{1}{4}$ gr.
5. Dose of all dilute acids is from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims.
6. Dose of all aquæ is from 1 to 2 ozs., except aqua lauro-cerasus and aqua ammonia, which are 10 to 30 minims.
7. Of all syrups, you can give one drachm.
8. Dose of all mixtures is from $\frac{1}{2}$ to 1 fl. oz.
9. Dose of all spirits is from $\frac{1}{2}$ to 1 fl. dr.
10. Dose of all essential oils is from 1 to 5 minims.

THE TREATMENT OF WHOOPING-COUGH.—In his summary of treatment, in a clinical lecture delivered at the Philadelphia Hospital (*Medical News*), Dr. John M. Keating emphasizes the value of the steam spray and atomization of medicated solutions, among which he

ascribes value to Dobell's solution, eucalyptol, and thymol. With the bichloride he advises caution. Corrosive sublimate, which is now used for almost everything, he says, has also been applied here in the form of the spray. He remarks that it is a dangerous drug to put into the hands of an inexperienced person, and, as we have so many other useful remedies for this affection, he thinks it wise to avoid the use of corrosive sublimate. He has used listerine extensively with good results in the treatment of whooping-cough. He employs it in the strength of one drachm to two ounces of water, with an ordinary hand atomizer, directs the nurse to apply it twelve or more times a day, and finds that little children, even babies, do not object to it. He adds to it tincture of belladonna, potassium carbonate, or ammonium bromide, as the case may demand. Chloride of ammonium he also finds of great service in the form of spray.—*New York Medical Journal*.

THE INJECTION OF OIL OF TURPENTINE INTO OLD SINUSES.—Cecchini (*Anuali universali di medicina : Abeille méd.*) reports a number of cases in which he succeeded in causing the closure of old sinuous tracts by injecting into them a few drops of oil of turpentine with a common hypodermic syringe. The best results, he says, are obtained when the drug is used pure, but it may be mixed with some bland oil, or even with a solution of morphine, as the pain is something considerable. By this simple treatment, the author has cured five anal fistulæ and six sinuses connected with carious bone. The turpentine is thought to exert a stimulating action on the walls of the sinus, whereby healthy granulation is promoted.—*N. Y. Med. Journal*.

SUNSTROKE.—Dr. C. H. Hughes, of St. Louis, Mo., directs special attention to the great value of bromide of potassium by mouth or by rectum in the treatment of sunstroke. He gives from sixty to one hundred and twenty grains during the first hour, and sixty grains every hour or thirty grains every half hour, largely diluted in peppermint water; sulphuric ether freely to head and spine, and fanned away till six ounces are used; ice at the same time to arms, wrists, abdomen, over the heart, legs, etc., and, in extreme cases of comatose collapse, ice-cold water into the bowels with ginger and capsicum, but ordinarily moderately cold water with two hundred grains of bromide of potassium.—*Weekly Med. Review*.

HYOSCYAMINE IN DELIRIUM TREMENS.—Dr. F. Tipton, of Selma, Ala., has had most satisfactory results with Merck's hyoscyamine, in doses of 1-20 grain hypodermically administered, in the treatment of all the distressing symptoms of delirium tremens. He writes: "It has never yet failed me, nor have I experienced any bad results from this drug in these doses. I treat all cases of delirium tremens with this drug as soon as chloral and the bromides fail, and they all get well rapidly. I use the following formula, which I obtained from Dr. P. Brice, of the Alabama State Insane Asylum:

R	Hyoscyamin, Merck's,	-	-	-	gr. j
	Alcoholis,	-	-	-	3 j
	Aquæ,	-	-	-	3 j

M. Sig.—Inject from five to ten minims for one injection."

Editorial.

THE RE-ORGANIZATION OF THE HEALTH DEPARTMENT.

By invitation of the present Board of Health, the members of the medical profession of this city were invited to meet at the rooms of the Board, and to give their views as to the re-organization of the Health Department. The sentiment expressed, both by the present Board and all present, was, that this city needed a more efficient organization. The manner in which this was to be accomplished was not so easily decided. Much useless and unprofitable discussion was indulged in, so that the people and the press got the impression that there was another doctors' row in progress. However spirited the discussion was, it must in justice be said that it was simply an honest and fair expression of opinion, free from any tendency to private quarrel. There were those who eloquently pleaded for a scientific Medical Board. Again, a plan was proposed for a body consisting of two laymen and three physicians. This seemed to be the plan in favor, until Dr. Briggs, by his convincing arguments, proved, to the satisfaction of many, that the City Engineer and the President of the Common

Council were greatly needed in such an organization. The Doctor evidently overlooked the fact that he is not always to be the Health Officer of the city—though we wish he might be; and that ordinarily such men have, by their indifference and political intrigues, been a hindrance in these organizations. The Doctor says he has found this to be quite to the contrary, and on this point he is to be congratulated. This has not been the good fortune of many medical officers of other cities. One physician of good standing, who has had considerable experience in health matters, favored a non-Medical Board, and still another would make the representation from the profession quite small. But we call to the mind the facts that such Boards have made many errors; in allowing nuisances to exist; in condemning as nuisances places that were not, etc., etc. From time to time, too, appointments to subordinate positions have been given to incompetent men. Such mistakes as these could not have been committed by medical men. Give us, then, a Medical Board. Do away with a body that condemns itself. Give us a Board composed of men that can advise and assist the Health Officer; that can supervise every department, and rich will be the reward. A Board composed entirely of medical men has many objections. First, it will not have the confidence of the people. Again, would the workings of such an organization be harmonious? Never! At least, never in this city. If a Mayor could choose five medical men, who would represent the varied interests of the profession in this city, and work in harmony, he would be the most phenomenal man ever elected to office. For these, and other reasons, we are greatly in favor of a mixed body, with a majority of medical men. To do effective committee work, the number should be five; committees of two, having charge of various departments. If such disposition of the work had been made in the past, the Committee in charge of the department of chemistry would have learned that their chemist was, for many weeks, in a distant city, and, practically, non-resident most of the time. The Committee having the supervision of

the inspectors might have discovered that certain of the inspectors had not been *very* active in the performance of their duties. Who should appoint the members of such a Board? Were it within its power, they should be appointed by the Superior Court of Buffalo; such not being the case, we can rely, as a general thing, on the appointments of the Mayor as being of a high order.

It was proposed, in the outset, to make only those physicians eligible who have practiced ten years. This is certainly quite right. Only in this manner can men of experience be assured. This Board should appoint a Health Officer and various subordinates. It was the general sentiment of the profession that the Health Officer should devote his whole time to the performance of his duties in this department, to pay him a fair salary—say five thousand dollars a year. Much could be accomplished in this manner. If this were adopted, several of the inspectors would not be needed. The following was adopted as the sentiment of the members present:

That the Board be composed of a citizen taxpayer, not a physician, and not holding a public office, and two physicians, of at least five years' practice. The members of the Board shall be appointed by the Mayor, their term of office being six years, the term of each expiring every two years; the member whose term shall first expire to be chairman of the Board. The following officers shall be appointed by the Board: A health physician, for six years, at \$5,000 per year, he to be the executive officer of the Board; a sanitary engineer, for six years, whose salary shall not exceed \$1,500; a clerk of the Board, at \$1,200; a clerk of vital statistics, at \$1,000; a city chemist, at \$1,500; a cattle inspector, at \$1,200; one or more inspectors of food, at \$900 each; a keeper of the quarantine hospital, at \$600; six sanitary inspectors, at \$600 each; ten district physicians, whose salaries shall be fixed by the Board, and which, in their aggregate, shall not exceed \$9,000; and such other officers and subordinates as from time to time the Board shall require, subject to the approval of the Mayor.

The recommendations in most cases were made by close votes. This should be taken into consideration by the committee that has the matter in charge. Give us a Board of five; three medical and two laymen—the physicians to have practiced at least ten years. All the members shall be taxpayers in this city. Such a Board would answer the requirements. To pay the members a small amount is also just. The other provisions as recommended are good. The only one that is open to objection is the large number of health inspectors. Rather give us two assistant health officers, at a liberal salary. To have, as at present, efficient medical inspection in one district and little or none in another, is but little use. To stamp out pests and infectious diseases in one street, and allow it to run wild in another, is not fair nor consistent. That such is the case at present, no one knows better than our health authorities.

That all should be required to pass a civil service examination goes without saying; the best man for the place, is the motto of the JOURNAL every time. Before another year rolls around, may it be our lot to have such a department.

JOHN PURDUE GRAY

“One of the founders and an ex-president of the New York State Medical Association, died after a long illness at Utica, N. Y., November 29, 1886, aged 61 years. He was the Medical Superintendent of the State Lunatic Asylum at Utica, having assumed the duties of that position in September, 1850, and it is no exaggeration to say that he made this institution the most favorably known in the world. As an alienist he was accepted as an authority, and almost invariably appeared as an expert in all cases of importance. His testimony is credited with being lucid, analytical and eminently impartial. When Guiteau was tried for the assassination of President Garfield he was chief of the experts summoned to Washington by the prosecution. His testimony followed that of all the other experts, in order that a careful review of the case might go to the jury at the close with all the weight of his ability and reputation. He did not see ‘the slightest shadow of insanity’ in Guiteau, and with this conclusion the nation fully coincided.

"On March 16, 1882, an unsuccessful attempt was made to assassinate Dr. Gray in Utica. He was in his office reading his mail, having just returned from Washington, when Henry Reimshaw entered and fired a shot at him from a revolver. The ball struck the doctor's left cheek bone, passed through the right cheek and lodged in the wall. The wound was not a serious one and the doctor soon recovered. Reimshaw was employed in Bagg's Hotel, and for eighteen months had been under the delusion that he was an ambassador sent from Heaven to shoot Dr. Gray. He had never been a patient in the asylum, but had taught Dr. Gray's children to swim.

"As a man, Dr. Gray was an enemy of sham and pretence, possessed of a judicial mind, and master of himself in the most trying situations; was thorough in the investigation of all medico-legal points bearing upon the particular case in hand, and always commanded the respect of his judges for the honesty of his opinions. He was active in the profession, defending its best interests; broad and liberal in his views, very approachable, and an especial friend to the meritorious, struggling practitioner. In the relations of life he was beyond censure, and died regretted in the community where he was best known."

To him is due the credit for most of the advances made in the last few years for the care of the insane. By medical teaching and example he taught the world that the insane were sick persons and not wild beasts, that careful medical treatment and good nursing were as essential to this class of sick as any other. The improvement in the asylum life of this class of patients, their amusement and occupation, were all largely due to his instruction. Many times has he had come back to him from others, as new and advanced ideas, methods which he had long before recommended and introduced. At the time of his death he was professor of psychology in Bellevue Hospital Medical College and in the Albany Medical College, and the editor of the *American Journal of Insanity*. He was also president of the psychological section of the International Medical Congress.

PASTEUR AND HIS METHODS.

The fame of Pasteur is rapidly declining. In his own country, now, many of the journals, both medical and secular, are publishing the numerous of his methods and even insinuating that the

inoculation of antirabic virus is even dangerous to life. Among the prominent critics of Pasteur is Dr. Lutand, editor of *Le Journal de Medicine de Paris*, one of the best of French medical periodicals. The number of this journal for Oct. 31st, is largely made up of criticisms on the Pasteurian method and its advocates. The first article entitled "Pastoriana," is a violent attack upon Pasteur for advising a provincial governor, who consulted him about numerous cattle bitten by a rabid dog, to have the cattle slaughtered, saying that the quality of the meat was not impaired by the rabic virus. Even the literary style of Pasteur's letter is criticised and the distinguished savour is advised to betake himself to the primary school for elementary instruction in French grammar. In another article the statistics published by Pasteur are ridiculed. It is claimed that 2,500 persons bitten by rabid animals have been treated, with forty deaths. The extensive advertising which the distinguished scientist has received has induced people, especially the wealthy, to seek his laboratory for treatment, and it is extremely doubtful if many of these frightened individuals were really bitten by rabid animals. An article, entitled, "Pasteurian Necrology," is published from week to week, giving an account of the deaths occurring after treatment. Nine occurred in the week ending Oct. 31st, alone; two in France, one in England, three in Russia and three in Spain. Of the Spanish patients three out of four, bitten by the same dog, died. The Spanish Governor telegraphed Pasteur, informing him of the failure of his method and demanding an explanation. He received the following laconic reply: "I don't understand it all." Even the associates of Pasteur are beginning to recognize the uselessness of their methods, and now announce that they will soon produce a more perfected method of inoculation.

A DESERVING HONOR.—It is with pleasure we announce that Dr. Judson B. Andrews, Superintendent of the Buffalo State Asylum, has been selected as president of the section on psychology and nervous diseases of the International Medical Congress.

Dr. Andrews is well-known, both at home and abroad, by his articles which he has contributed to medical science during the last twenty years. Dr. John P. Gray had been elected as the person well calculated to fill the position. By his death his mantle worthily falls on Dr. Andrews as the one best fitted by education and natural acquirements to fill such a position. The work of this section has already favorably progressed. Several English neurologists have signified their intention of being present and reading papers.

WE call attention to the advertisement of Messrs. Wyeth & Bro., of new combinations of patent drugs which they offer in the form of Hypodermic Tablets. A long experience with the preparations of this firm has caused us to look upon the name of "Wyeth" as a guarantee of purity and excellence. Our readers will find in the list many new remedies, and these preparations make their employment very convenient. In their full list is now comprised every known remedy suitable for hypodermic exhibition.

THE STATE MEDICAL SOCIETY will hold its regular annual meeting in Albany, Feb. 2d, 3d and 4th. The programme arranged is most elaborate. It will doubtless prove a source of pleasure to all who attend.

Reviews.

A Dictionary of Practical Surgery, by various British Hospital Surgeons. Edited by CHRISTOPHER HEATH, F. R. C. S., Holme Professor of Clinical Surgery in University College, London; Surgeon to University College Hospital; Member of the Council and Court of Examiners of the Royal College of Surgeons of England. In two volumes. Vol. I., Abdomen—Lymph—Scrotum; Vol. II., M—Z. Philadelphia: J. B. Lippincott Company. 1886.

The two volumes are bound together, thus making one quite large, yet not cumbersome, book. It is designed as a handbook of reference for the busy practitioner, and this purpose

it subserves right well. Over one hundred eminent English medical men have contributed to this work articles of greater or less length. Such names as Paget, Thompson, Swain, Stokes, Prestley, Smith, Poore, Page, Meredith, Liveing, Lawson, Langton, Gowers, Duckworth, Browne, Carter, Barlow, Anderson, and many others equally renowned, appear as contributors. "The subjects are treated of, so far as practicable, in the following order: 1. Cause; 2. Pathology; 3. Symptoms and Diagnosis; 4. Treatment; 5. Prognosis. Each writer has signed his articles, and is responsible for the statements contained in them; but the editor has, of course, exercised a general supervision, and has endeavored to prevent the promulgation of crude theories, or the inculcation of doubtful practices. At the same time, he has not attempted to reconcile the views of surgeons who may happen to differ on points of practice, nor does he endorse every statement put forth by the various writers. The aim of the editor has been to produce a compendium of the practice of British Surgery of the present day." At the end of the second volume, there will be found a general index. It is most complete, and greatly adds to the usefulness of the work. It will doubtless have a large sale, and take the place of the large encyclopædias, which have had their day.

How we Treat Wounds To-Day. A Treatise on the Subject of Antiseptic Surgery, which can be understood by beginners. By ROBERT T. MORSE, M. D., late House-Surgeon to Bellevue Hospital, N. Y.; Member Lumæan Society of Natural History, N. Y.; Member New York County Medical Society, Second edition. New York: G. P. Putnam's Son's. 1886.

This work has passed rapidly to a second edition; this alone giving evidence of its popularity and the value the profession places upon it. It contains all that a busy practitioner needs for the complete understanding of Listerism in its minutest detail. It gives a concrete description of the way in which a few wounds should be treated; it then gives facts concerning the methods. After giving pages of good advice on the materials needed and how to prepare them, it gives the places where such can be bought, the price, etc. It then proceeds with the general directions, the treatment of recent incised, inflamed incised, wounds

in ovariectomy, wounds remaining exposed, wounds requiring frequent change of dressing, lacerated and contused wounds, gun shot wounds and burns. Lastly he gives words of advice as follows: "He who has not learned some scientific antiseptic method for wound treatment has not learned the first principles of surgery." In which we heartily concur.

Diseases of the Nerves, Muscles and Skin, being Vol. III. of Dr. HERMANN EICHHORST'S Handbook of Practical Medicine, and Vol. X. of Wood's Library of Standard Medical Authors, 1886 (consisting of 12 vols., price, \$15.00). Sold only by subscription. New York: William Wood & Company.

Diseases of Digestion, Urinary, and Generative Organs. Illustrated by 106 fine wood engravings. Being Volume II. of the Handbook of Practical Medicine. By Dr. HERMANN EICHHORST, Professor of Special Pathology and Therapeutics, and Director of the University Medical Clinic in Zurich. This is Vol. VI. of Wood's Library for 1886. New York: William Wood & Company.

Our subscribers who are not this year taking "Wood's Library" are losing some excellent books, indeed we think the series for 1886, in some respects, the best of any year. All of the volumes on "Practical Medicine," by Dr. Hermann Eichhorst, has been worthy of their title. They are eminently practical and thoroughly up to the present knowledge.

A Manual of Animal Vaccination, preceded by considerations on vaccination in general. By Dr. E. WARLOMONT, Member of the Royal Academy of Medicine, of Belgium; Founder of the State Vaccine Institute, Belgium, etc. Translated and edited by ARTHUR J. HARRIS, M. D., Senior Assistant Physician and Joint Lecturer to St. John's Hospital for Diseases of the Skin; Consulting Physician to the Association for the Supply of Pure Vaccine Lymph. With an appendix showing the results of re-vaccination, and the comparative utility of animal vaccine. Philadelphia: John Wyeth & Brother, 1412-1416 Walnut street. 1886.

In this work of about 150 pages, Dr. Warlomont presents a most excellent resumé of the existing knowledge on the subject of vaccine and vaccination. He adds to this, his own vast experience on this subject. He records the comparative results with animal and humanized virus, and proves conclusively the superiority of the former over the latter. The chapter on vaccino-syphilis is very valuable.



VOL. XXVI.

FEBRUARY, 1887.

No. 7

Original Communications.

VAGINISMUS. *

BY GEO. E. FELL, M. D., F. R. M. S.,

Physician to Sisters of Charity Hospital, Professor of Physiology and Microscopy, in Medical
Department of Niagara University, Treasurer and Custodian American
Society Microscopists, etc.

The condition of the generative organs of the female, which I have the honor of presenting for your consideration this evening, is one of extreme interest as affecting the welfare of not only the virgin, as in the case I will relate, coming under my own experience, but to both parties to the married state, when the condition prevails, as it very often does in the married woman.

Furthermore, I believe a paper upon this subject has not yet been presented to our society.

To a no less high authority than Dr. Marion Simms do we owe the term *Vaginismus*, which, as accepted, implies an affection of the nerves of the vagina in the region of the hymen, marked by contraction of the muscles in and about the vaginal walls, which interferes, to a certain extent, with the function of these parts, and often seriously modifies the health of the patient.

* Read before the Buffalo Obstetrical Club, Oct, 27, 1886.

There is some difference of opinion regarding the pathology of vaginismus ; while it is conceded to be a neurosis, all are not agreed as to the muscular factors which produce the stricture. Lusk, in speaking of the structure of the vagina, says, "The muscular fibres, which are of the involuntary variety, run in both a longitudinal and transverse direction, and are so interwoven together that a dissection into distinct strata is impossible." Further, "that the muscular layers gradually increase in thickness as they approach the vaginal orifice, and, according to Luschka, a circular bundle of voluntary fibres, the sphincter vaginæ, surrounds the lower extremity of the vagina and urethra." In this statement, it is noted that the muscular fibres of the vagina appear to be the constrictor factors. Dr. Thomas says, "It is generally accepted as a fact that the bulbo-cavernosus muscle, which passes over the clitoris and forms a figure of 8 with the sphincter ani, is the constrictor vaginæ." Dr. Savage denies this, and claims that the pubo-coccygeus muscle is the main constrictor in vaginismus. This muscle is situated within the pelvis just above the point at which the vaginal walls branch off to seek their osseous attachment. It arises from the inner surface of the pubic bone. Its median fibres descend by the side of the urethra and vagina, some of them turning in between the vagina and rectum to meet similar fibres from the opposite side in the perineal body ; another more outward series, turning in beneath the rectum, intermix with fibres from the other side ; while the remaining, still more outward, are inserted into the side of the coccyx (Thomas, p. 142). Gray, in speaking of the sphincter vaginæ, says it surrounds the orifice of the vagina—is attached, posteriorly, to the central tendon of perineum, where it blends with the sphincter ani, and that its fibres pass forward on each side of the vagina, to be inserted into the corpora cavernosa of the clitoris. This last muscle corresponds in its location and general description to the bulbo-cavernosus previously described, and, while it may be looked upon as the chief factor in constricting the vagina, it is altogether probable that the deeper muscles corresponding to the pubo-coccygeus are also brought into play in this affection.

The causes which are said to produce this condition are almost as numerous as the diseases which affect the female genitalia.

The hysterical condition is said to be a very common factor, and yet, according to authorities of value, the treatment adopted frequently cures, or, at least, wonderfully modifies hysteria.

HYSTERICAL VAGINISMUS.

Thomas, (*Diseases of Women*, p. 143,) gives the recognized causes of this disease as follows:

The hysterical diathesis.

Excoriations or fissures at the vulva.

Irritable caruncle of the meatus.

Chronic endometritis or vaginitis.

Pustular or vesicular eruptions on the vulva.

Hyperæsthesia of the remains of the hymen.

An abnormally rigid perineum.

Disproportionately large size of male organ.

Others ascribe it to fissure of the anus.

The views of Prof. Scanzoni, who had a large experience with this disease, are instructive.

Of thirty-four cases, he found that twenty-five had various functional and organic difficulties, which in twenty cases had come on after marriage.

In eleven, there was congestive dysmenorrhœa.

In one, amenorrhœa had existed for three years.

In thirteen, there was chronic metritis.

Four had either retro or ante version.

In one, there was perimetritis.

In seventeen, chronic uterine catarrh.

In fourteen, vaginal catarrh.

In one, ante flexion.

In two, retro flexion.

Nine had urinal difficulties.

One had inflammation of the right Bartholian's gland.

In fourteen, there was symptoms of anæmia, and in seventeen there was hysteria.

According to Frankenhauser, (Hart and Barbour, p. 74.) "the terminations of the nerves in the muscular layers of the uterus is in the nuclei of the unstriped muscle;" this may be the condition in the vagina. He states also "that numerous end bulbs have been found in the clitoris and vagina." It is not unreasonable to suppose that any abnormality producing a hyperæsthetic condition of these nerve terminals, would, through reflex action, cause vaginismus.

Diagnosis.—It would seem from the very nature of the disease that there would be no difficulty in diagnosis, if opportunity is offered the physician to make an examination.

In the young married woman with such a condition, the husband is quite likely to soon have the case referred to the physician, but in the virgin it is not so easy to bring this about, and many steps are taken before an examination is demanded. A proper digital examination should, in my opinion, make clear the diagnosis.

Prognosis.—Dr. Simms* says, "I can confidently assert that I know of no disease capable of producing so much unhappiness to both parties to the marriage contract, and I am happy to state that I know of no serious trouble that can be so easily, so safely and so certainly cured."

Treatment.—One writer says the treatment after marriage is *psysical*, discontinue coitus and with increased mutual confidence everything will be right later on. He also speaks of slightly stretching with dilators. (Fritch, "Diseases of Women," pp. 101 and 102).

Tait ("Diseases of Women," p. 46,) says, "The great majority of these cases are cured by the use of simple cerate and the restriction of intercourse within moderation. Further, that of the large number of cases sent to him as vaginismus, for the purpose of having the operation of division of the sphincter muscle performed, he had not operated upon for the reason that he had been able to find a more tangible cause for the patient's

* Simms' Uterine Surgery, p. 326.

distress than the **hypothetical* contraction of the sphincter muscle." As to the hypothetical contraction of the sphincter muscle, I should be constrained to think that the writer had never experienced the sensation of a sphincter vagina contracting on his finger, or he would have used no such expression.

Hart and Barbour (Manual of Gynecology,) recommend the removal of any carunculae which may exist, the division of the base or touching of irritable fissures with the actual cautery, the use of iodoform ointment, and then, after the cause is removed the ostium vaginæ must be dilated. If this does not accomplish the object, we must have recourse to Simms' operation.

"Dr. Tait (Diseases of Women,) recommends the chloroform anesthesia of the patient and the introduction of the two thumbs into the vagina, back to back, and their forcible separation, so as to keep the vagina distended for a few minutes." On the same principle Dr. W. P. Hood, under chloroform narcosis, dilated the vagina by the expansion of a bivalve speculum, and allowed the instrument to remain there five minutes.

The operation of Dr. Simms is performed as follows: The patient under anæsthetics, on her back upon a table, the remains of the hymen are entirely excised with a pair of curved scissors. Hemorrhage is prevented with cold applications (ice-water,) or persulphate of iron.

The index and middle finger of the left hand are then passed into the vagina, putting the fourchette on the stretch. By means of a scalpel, a deep incision is then made of the right of the mesial line, terminating at the raphæ of the perineum. A similar incision is then made on the opposite side, the two being united at the raphæ, and extended to the perineal integument and through its upper border. Each of these incisions will extend from about half an inch above the upper border of the sphincter to the perineal raphæ, thus passing across the muscle, and measuring nearly two inches. The vaginal dilator is worn for a few hours in the morning and evening, according to the

* Italics mine. G. E. F.

tolerance for which it is manifested. Another operation endorsed by a high authority, but not generally approved by the writers upon this subject, is one proposed by a Dr. Burns, and consists in section of the pudic nerve. This is mentioned merely to condemn it.

Dr. Thomas (*Diseases of Women*, p. 149), recommends in the light of our knowledge at present on the subject :

1st—The removal of disease of the genitalia, if such be found ; insists upon the patient living apart from her husband ; recommends copious injections of warm water twice daily ; the use of local suppositories, tonics, change of air, sea bathing, and the introduction of the glass plug in the vagina for several hours each day.

2d—Should this not suffice, anæsthetize the patient, and by means of a tri-valve, or quadri-valve speculum (the latter I believe to be best), distend the ostium vaginæ thoroughly ; follow with the use of the vaginal plug and soothing applications.

3d—Should this also fail, with the patient under anæsthetics, remove the hymen with scissors, incise the perineum as it is torn in parturition, and use the vaginal plug for a week.

This treatment is that which appeals most strongly to our reason, and will undoubtedly almost always prove effectual.

The majority of the authorities oppose the use of the knife, and, owing to the dangers incurred in incisions about these most vascular parts, we cannot but agree with them. Barnes states that he has cured many cases by the methods adopted by Scanzoni—"the allaying of inflammation that may exist, and the gradual dilation by glass plugs worn for short intervals at a time—"but that he has met with cases where the knife or scissors gave *not only* the *quickest* and most *efficient relief*, but also it was accomplished at the least cost of pain and other distress.

REPORT OF CASES.

Hewitt* gives an instance of a case in a married lady who had had two children ; for some months there had been extreme

* Hewitt, "*Diseases of Women*," third edition, 1880.

sensibility of the ostium vaginæ, preventing intercourse. He found that the sensibility was limited to a spot near the posterior commissure, over an area of less than one quarter of an inch. The mucous membrane over this part was pared away, the lips of the wound sutured with fine silver wire, with an abatement of the trouble.

I might cite many cases reported by gynecologists of extensive practice; they would be of no special value, as after a consideration of the causes, and general methods of treatment, it will be seen that the judgment of the practitioner is a most important factor.

In conclusion, I will report an interesting case which came before me.

Miss B., aged fifteen, was found to be in a hysterical condition at times quite violent, but generally controllable. The paroxysms had increased within the last few months, and taken such peculiar manifestations, that she had become a great trial to her parents and friends. The attacks were ushered in by a sudden outburst of anger, a desire to bite her attendants, this would pass away, the patient become laughable, and when opportunity appeared to offer, the biting would be renewed. When overpowered by the attendant, she would frequently quietly give up with that peculiar glaring, laughing, meaningless smile so frequently seen in the hysterical woman. Tonic spasms would ensue at frequent intervals with the ordinary characteristics; in a few minutes they would pass away, leaving the patient physically prostrated for the time being. This continued for some time. Three physicians had seen the case, two recommending chloral and the bromides; the third placed the patient under the influence of chloroform kept up the anæsthesia for a short time, without any apparent definite purpose in view, allowed her to pass from under its effect, and gave up the case.

As I viewed this case, my mind ran upon the fact that one of the most frequent causes of perturbed nervous action in the young female was undoubtedly abnormalities associated with the menstrual function; in this case, menstruation was not yet

established, I thought—possibly delayed and a condition of dysmenorrhœa existing. To relieve the patient, vaginal suppositories of opium and belladonna were ordered with most satisfactory results. It was noted, however, that they could with difficulty be passed into the vagina by the patient.

Concluding that a digital or specular examination was requisite, I so informed the parents of the young lady, and on the following day made it with satisfactory results. Excepting entirely the natural modest objections on the part of the patient to an examination of this nature, the paroxysms produced by attempting to pass the finger into the vagina were of the most violent kind; indications of acute pain, evidenced by terror on the part of the patient, were noted whenever attempts were made to pass the finger through the sphincter.

The contraction of the vagina began about one-half inch from the ostium, and, as near as could be determined, was fully an inch in extent, indicating that the deeper muscles were involved. The middle finger could not be made to enter; the little finger was used with better results, passing, after some effort, to the vaginal cul de sac. The suppositories were kept up for a day, until they lost their efficacy, the nervous condition of the patient having been greatly aggravated by the examinations referred to. A series of spasms set in the third day of a most violent nature, one rapidly following the other, until the patient became so much exhausted that immediate operative interference was decided upon. Assisted by Drs. Daniels and Smith, the patient was placed under the following anæsthetic :

Rx	Chloroformi,	-	-	-	fld. ℥ iii.
	Ether (Squibbs'),	-	-	-	fld. ℥ iss.
	Alcohol,	-	-	-	fld. ℥ ii.

This combination has given, in a number of cases, such great satisfaction that I will ask for no better, and deem it worthy of mention in this connection. After complete anæsthesia had been produced, a four-bladed anal speculum was introduced, closed, to the fundus vaginæ. The instrument was gradually dilated until the blades were separated from one

and one-quarter to one and three-quarter inches, the dilatation held at this extreme extent for a few minutes, and the blades of the instrument closed; this was repeated, a vaginal suppository (opium and belladonna) introduced, and a glass plug an inch in diameter placed in the vaginæ, and retained with a "T" bandage. While the speculum was in the vagina, the os uteri was dilated, the cavity of the uterus examined, but no abnormalities appeared to exist.

The only change in procedure from that mentioned above that I should suggest, would be to dilate quite as fully and retain the vagina in the dilated state for a greater length of time—say ten to fifteen minutes—then use the glass plugs.

The results in this case were sufficiently satisfactory to attest the value and necessity of the method of treatment. The hysterical condition was immediately abated, and while another dilatation was recommended, to insure a permanent improvement, the results have been so satisfactory that the method of treatment is demonstrated to be the only one which will prove of any *lasting* benefit to the patient.

Furthermore the value of a single dilatation is evidenced in the greater susceptibility of the patient, thereafter, to the influence of treatment by drugs. Since the operation was performed menstruation has set in and the condition of the patient is markedly improved

PREGNANCY NEPHRITIS.

By DR. E. R. ARMSTRONG, Holly, N. Y.

Medical science has been cultivated with such intelligence and laborious activity during the last three or four decades, and its fruits so carefully garnered in our vast storehouses of professional literature, there might seem to be nothing left for the common laborer but to utilize what has already been gathered together. As co-laborers our experiences may differ in the use of the material on hand, and by comparison each may receive benefit, and thereby become better equipped for professional

work and especially for those emergencies which every one is liable to meet.

In obstetric practice affairs may run smoothly for a long time, when suddenly and perhaps unexpectedly the physician is brought face to face with abnormal conditions that imperil the life of a human being, conditions that require, on the part of the practitioner, accurate knowledge, self-control and prompt action to rescue his patient from impending death.

Perhaps the most fearful and dangerous manifestation of diseased action, incident to the pregnant and parturient states, is eclampsia, as a sequence of nephritis. Fortunately for child-bearing women this affection is not very common; but since it gives a maternal mortality of about thirty per cent. and a foetal mortality of fifty per cent. it must awaken in every philanthropic mind an earnest desire for a better mode of treatment than we now have. If so desirable a point be ever reached it must come by a careful and earnest investigation of pathological theories, and by clinical experience.

Various speculations have been advanced on the etiology of pregnancy nephritis. In 1840 Rayer called attention to the disease and described its principal symptoms. Three years later Lever published the results of observations in the London Hospitals, showing that nine out of ten parturient women who had convulsions were albuminous. Frerichs, in 1851, first attributed *eclampsia parturientium* to uraemic intoxication, as the sequence of nephritis, and from that time to this few forms of renal disease have been more written about, and yet its etiology is still unsettled. I will not here venture upon a discussion of the various theories that have been announced, but proceed to narrate two or three cases that have come under my observation during the last three or four years.

Case I.—Four years ago I was hastily summoned to see Mrs. H., a near neighbor, in her first confinement. Arriving at the bedside I found her in a severe convulsion and an irregular practitioner in attendance. He informed me that he had been with the patient twenty-four hours, during which time the pains

had continued with the usual regularity, but had lacked force so that but little advancement had been made towards delivery. He also informed me that she had been very nervous and had complained of headache and distress in her stomach ; that she was suddenly and unexpectedly seized with a fit, and notwithstanding he had given repeated doses of lobelia to arrest them, they had continued for three hours with increasing energy and frequency. Being requested to take charge of the case, I at once administered, hypodermically, one fourth grain of morphia and one hundredth of atropia, following this with an enema containing thirty grains of chloral hydrate and forty grains of potassium bromide. A digital examination was now made, and finding the os retracted beyond the foetal head, the forceps were applied and delivery effected in about twenty minutes. A few minutes later the placenta was expelled, the mother meantime being in profound coma with loud stertor. The patient being changed to the usual position in bed, was again seized with a severe convulsion. When it terminated, another hypodermic injection of morphia and atropia was administered, after which there were no more convulsions.

The patient remained in a comatose condition ten hours, and several hours more supervened before consciousness was fully established and the mental faculties had attained their normal condition. The bladder had been emptied with a catheter previous to delivery, of eight ounces of dark colored urine. An examination gave a specific gravity of 1035 and sixty per cent. of albumen. Retention of urine with vesical irritability lasted a week, requiring the use of the catheter every six hours. Under the use of salines and iron the general anasarca, as well as the albumen in the urine, rapidly disappeared, and in three weeks the patient was about the house. I learned from the family that for eight weeks previous to confinement the patient suffered from vertigo, headache, impaired vision, nausea, dysuria and œdema of the limbs and face. She was under the observation of her physician during this time, but no prophylaxis against eclampsia was used.

Case II.—Mrs. A., aged 27, primipara. I was called in consultation with Dr. B., last December, to see this lady, who had nearly completed her seventh month of gestation. Without any warning to her friends she had been suddenly prostrated with convulsions without any sign of labor. There had been several severe convulsions before my arrival, with coma during the intervals. Her condition plainly indicated pregnancy nephritis. There was œdema of the face and extremities with general anasarca. I learned that the patient had complained of vertigo, headache and nausea, and that the urine had been scanty and high colored. A sample was examined and found to contain seventy per cent. of albumen, with a specific gravity of 1036. A brisk purgative was administered *per os* and thirty grains each of chloral hydrate and potassium bromide in two ounces of starch water as an enema. The latter was repeated in three hours, after which the paroxysms ceased and did not return. Saline laxatives, sufficient to keep the bowels open, with tincture of iron and bromide of potassium were administered during the remaining period of gestation, when labor came on, and she was delivered of a dead child without artificial aid. There was still œdema of the face and limbs with albuminous urine. The eliminative and tonic treatment was continued. At the end of twenty days no trace of albumen was found in the urine and the other abnormalities had likewise disappeared. She soon regained her usual standard of health, which has continued to the present time.

Case III.—Mrs. C., aged 22, primipara. In June last this lady had completed seven-and-a-half months of gestation, when I was called to see her. She was confined to the bed a portion of the time. There was cerebral disturbance in the form of headache, vertigo and impaired vision, with gastric irritability and constipation. The limbs, face and body were anasarcaous to an unusual degree.

I obtained what urine had been voided in twenty-four hours and its analysis showed only 450 cubic centimeters in amount, dark with a specific gravity of 1035 and 30 per cent. of albumen. St. Vapor baths, on alternate days, were ordered, the bowels were

kept open by a saline draught an hour before breakfast, and twenty minims of the tincture of the chloride of iron given after meals and at night. Under this treatment the cerebral and gastric disturbances were relieved, and the anasarca somewhat diminished. Six weeks more completed the period of gestation, when she passed through a natural labor, giving birth to a ten-pound, healthy boy.

In comparing these cases we observe that the symptoms of pregnancy nephritis were pronounced in each. In the first the morbid train of events culminated in eclampsia during labor at term; in the second, six weeks before labor came on; in the third case the convulsive explosion *only* was wanting. In all three the danger signals were present. In the last only, were these signals observed and therapeutic measures adopted with a view of arresting or modifying the morbid processes going on in the system. I have a strong suspicion that the convulsion explosion would have occurred in the last case had not measures been used to prevent it.

In pregnancy nephritis the primary lesion is undoubtedly in the kidney, and yet this organ does not seem to suffer any irreparable injury. At first its disturbance is mainly functional. Less urine is secreted, and what is secreted is of high specific gravity, high color and albuminous. As the case goes on there is generally cerebral and gastric disturbances, with a steady increase of dropsy and albuminuria until systemic toxæmia reaches the explosive point, when convulsions or premature parturition, or both together, ensue. If the patient survive the shock, not only the dropsy, but the urinary abnormalities likewise disappear with wonderful rapidity.

Pregnancy nephritis is perhaps more frequent than is generally supposed. It seems to me, judging from my own experience alone, that such disease is vastly more common than formerly, but there are so many sources of error in this that my observation is of no real value. The best statistics now show its presence in the ratio of one to twenty-three, appearing most frequently in primiparæ. But since these cases are not generally

observed by physicians, until the very termination, the reports are quite unsatisfactory. The frequency, however, of nephritis, with its possible results, and the obscurity often of its general symptoms, should show how very important it is that the condition of the patient during pregnancy be carefully watched, especially in primiparæ. The victims of uræmic toxæmia are already far too numerous, since early detection would, in many instances, enable us to avoid a fatal issue. My obstetric record, during the last twenty years, contains ten cases of pregnancy nephritis that I have attended. Eight of these had eclampsia during parturition, one six weeks before, and the tenth presented all the precursory signs, which seemed to yield to treatment. One of the ten died, nine recovered. The case that proved fatal was in labor twelve hours, and had ten convulsions before my arrival.

With this limited clinical experience it would be presuming to attempt to formulate a course of treatment for others. If we turn to our authors for instruction on this subject we find it hard to reconcile the opposite views advanced by our most eminent men. Hodge, Gooch, Ramsbotham, Dewees, Meigs tell us to depend on the lancet. Meigs, on one page, says: "the only real resource in the puerperal convulsion is the use of the lancet, and nothing but the lancet is worth your confidence." On another page he tells us "the pregnancy ought to be terminated in order to put a stop to the malady, therefore deliver as soon as possible." A wonderful contradiction in almost the same breath. On the other hand Trousseau, Leishman, Lusk and others declare "that indiscriminate bloodletting is a monstrous evil." Again, there are many practitioners of ability and experience who rely chiefly, if not entirely, upon chloroform as the remedy for these affections. There are still others who as strongly recommend morphia, chloral and the bromides. With such conflicting opinions and practice, I know of no better way than for each one to weigh the whole matter well and mark out his own course. Mine has already been indicated in the cases given. To be more explicit, I would; say, first ascertain the condition of the patient during the later part of pregnancy, when practicable, especially in primiparæ,

and if there be signs of nephritis put the patient under treatment, with a view of avoiding convulsions. Second, if convulsions occur before the time of gestation expires control them with drugs if possible, otherwise induce premature labor. Third, if the attack be coincident with labor, and the patient strong and plethoric, bleed, purge and put the patient under the influence of chloral hydrate, giving fifteen to twenty grains every two hours until the convulsions cease. Fourth, if the patient be feeble and anæmic omit the bleeding. The bromides may be used with good effect, likewise morphia hypodermically. If the condition of the patient prevent the administration by the mouth use enemata. Fifth, as to the question of effecting speedy delivery. I am aware that it is a very common practice to expedite delivery by every means available, in many instances using severe and forcible measures to accomplish that object. In my humble opinion this practice is highly reprehensible, for if the *os* is not fully dilated and the child well down in the pelvis it will be immensely safer for the patient to keep her under the influence of chloral and morphia until the forceps can be easily applied, instead of forcibly dilating the *os* and turning the child, or dragging it away with instruments. I would not hesitate, however, in using the forceps as soon as it can be done with safety to both mother and child. We have remedies by which we can keep the patient easy and comfortable, and, therefore, we need be in no hurry to use violent or extreme measures.

Society Reports.

ERIE COUNTY MEDICAL SOCIETY.

The annual meeting of the Society was held January 11, 1887, at Y. M. C. A. building. There was a goodly number in attendance. Dr. Thornton read the minutes of the last meeting, which were approved.

Dr. Dorland, the President, addressed the Society as follows :

PRESIDENT'S ADDRESS.

Custom as well as our law demands as one of the duties of the expiring presiding officer, that he should leave a legacy of written words behind him. In compliance with this duty, I propose to read a very short paper. which, whatever else it may contain, will assuredly not interpret duly the sentiment of him who wrote it, unless it make you sensible of his grateful and kindly feelings for the unmerited honor your courtesy has conferred upon him, and for the invariable consideration and forbearance extended to him while in the discharge of his official duties. For all which I can but simply thank you, and proceed without further preamble with the reading of the paper. It would ill become the writer on such an occasion as this to detain you with a lengthy paper, though the subject might be ever so interesting, and the writer ever so competent, which he with becoming modesty disclaims. My compulsory paper is on the subject of drugs in the treatment of disease. I am aware that much has been said and written upon the subject of excessive medication, which is largely due, I suppose, to the great multiplication of remedies, and in part, I believe to the weakness of many in catering to the morbid propensity of patients for drugs. Still notwithstanding the sentient words of protest that have been uttered against this empirical practice, I am frequently cognizant of indulgences in it by men of good and regular standing to an extent in my judgment hardly compatible with the seriousness and gravity of our calling. I assume that among intelligent, well-informed, conscientious physicians, there is less faith today in drugs in the treatment of disease than at any previous time since the science of medicine took on the character of a learned profession. The progress of true medical science has greatly qualified our estimate of the value of mere medicine in the treatment of disease. Every day is showing the value of measures founded upon a rational study of the body and its diseases; at the same time, no sound man is very sanguine in his expectations of discovering specifics. In proof of the statement that with the advance of medical knowledge, faith in drugs *per se* has diminished, I may note that wounds that used to be treated with unguents containing twenty ingredients, more or less, are found to do far better with simple water dressings. The pneumonia that used to be attacked with heroic remedies, bleeding, antimony and

calomel, now gets well with horizontal position and dover powder. Typhoid fever instead of being drugged, is now treated with good air, pure milk, and plenty of water, both internally and externally. The chief characteristic of advancing therapeutics is to respectfully watch the natural course of disease, to regard pathological processes only as modifications of physiological ones, with natural tendency to terminate in harmonious and healthy action when the obstructions are overcome which these pathological processes themselves were put in action to remove. All this is done without any detracting from the dignity and importance of the physician. He is, indeed, much more worthy of public admiration and confidence than he who would attain no more than the same result by the most active medical warfare. True physicians never talked so modestly as now about curing disease. Pseudo medicine, on the contrary, talks loudly of specifics, and makes no account of Nature's provisions for the cure of physical ills. With them, medicine is everything; Nature, perverse and destructive. One medicine with our medicine monger is never sufficient to cure disease: it always requires two or more, alternated with exactness and taken frequently. Upon this plan the poor victim of the infinitesimal often becomes the receptacle of a most unprincipled amount of medicine. In extenuation of this practice, it is often said that the people are not sufficiently educated to accept the advice of a physician without medicine. This is in some degree true, but sensible patients will soon learn to prize and properly appreciate the advice of an honest physician. The habit of giving medicine in all cases, and from two or three to half a dozen at a time often, has become an established practice with very many practitioners. While I would not assert that the compounds given are usually very injurious, or in anyway capable of doing great harm, I would maintain that they are unnecessary, sometimes injurious, and always objectionable, unless plainly indicated. It requires much less time and thought to write a prescription than it does to explain why no prescription is necessary. Many persons at first might not be as well satisfied with little or no medicine, but in the end their opinion of the physician who would not unnecessarily medicate, would be more exalted. I insist that by many, (though by less I believe than formerly,) disease is greatly over-treated. It did appear at one time that the vagaries of Hahnemann would do something to check the abuse of medicine, but even the belief that homeo

pathic remedies would at least do no harm, has long since been dissipated with the knowledge that even the disciples of this transparent delusion are drugged more extensively and often more dangerously than any other. I would not by any means say aught that would lessen faith in judicious medication, or detract in the least from the confidence which the intelligent physician reposes in his therapeutics, but I would rather increase his expectation of usefulness by excluding from his armament the useless weapons and suggesting the employment of the remaining only when necessity demands. That there is, however, on the part of many, far too much confidence in medicine, and too great readiness to attribute results to its effects, I firmly believe. This holds good both with physicians and patients, but whatever of censure rightfully attaches to it, should apply to the physicians, for with the laity we can expect no intelligent discrimination when we consider the marvelous ignorance displayed by a large part of the community in regard to the profession of medicine, which great ignorance physicians know full well has even furnished a rich field of operations for every species of medical humbuggery; richer by far, I believe, than the gold mines of California, or the silver mines of Nevada. More careful study of the natural history of disease, and more thorough acquaintance with the conditions of its progress and decline, will enable us to more correctly estimate the true value of remedies, and prevent in great measure the administration of medicines which can do nothing better than amuse the patient while nature cures the disease. I am aware that those of my hearers who are fully abreast of the times in regard to modern pathology, will likely think that such a paper as I present would have been more appropriate twenty years ago; that with the marvelous light the germ theory has and is throwing upon the pathology of to-day, the science of therapeutics must of necessity assume more of intelligence and precision—a result most devoutly to be wished for. But until there is less of the senseless and unreasonable dosing which we know still obtains, there is excuse, I think, for some such strictures as my paper very imperfectly presents.

The following statement (with which I close my paper) was made several years ago by a prominent journalist, and, though rather ancient, contains truths I think that are pertinent to the present as well as to the past days of medical history. It is as follows: "To reform and educate the masses to a just appreciation of the value of medicine as

such, or the importance of observing the plainest and most common hygienic rules and conditions, may well be looked upon as a discouraging task. Intelligent men in other matters will astonish us with their ignorance in matters of medicine, and when the various forms of absurdity which now receive credence shall have been exploded and passed away, others will not be wanting to take their places equally absurd and preposterous. About one quarter of the people follow after and take to the systems of empiricism as they severally make their appearance. Thompsonian, eclectic, galvanic, homeopathic, magnetic, spiritualistic, dermotic, aquatic, etc., each in turn receive their support and is the system they advocate. They are worthy people; in most respects, they have not less common sense and observation than others, but are monomaniac in matters pertaining to medicine. That this is the true condition of things is no disadvantage to the capable physician. On the other hand, we regard it a blessing, since truthful and honest advice, which had a show of consistency and probability about, it would be repudiated by them as too dull and old-fashioned for their faith, having nothing wonderful, mysterious or unaccountable about it, nothing to attract or confound. Physicians do not want such patients, and it cannot be regarded otherwise than a favor that their wants can be supplied from the ever-open fountain of delusion."

The Chairman of the Committee on Membership, Dr. T. M. Johnson, reported that the following named gentlemen had made application and were recommended for membership by the committee: Drs. George H. Westinghouse, E. J. Murphy, W. E. Jennings, Gustav Pohl, H. J. Hill, W. E. Robbins, E. M. Wetherill, E. T. Smith and E. T. Stevens.

Upon motion of Dr. J. C. Greene, the report of the committee was accepted and their recommendation adopted.

Dr. Stork, Chairman of the Board of Censors, presented the following report:

REPORT OF THE BOARD OF CENSORS.

At the last annual meeting of the Society, the following resolutions were passed and referred to the Board of Censors:

1. That the Board be instructed to determine whether a member of this Society can join a Homeopathic Medical Society and still retain

his membership in this Society, and whether he is liable for expulsion for such action.

2. That the Board be directed to determine whether a member of this Society dealing in patent medicines and nostrums can hold his membership in this Society.

In regard to the first, the Censors hardly deem themselves competent authority to determine this question. We may say, however, that in this matter "the motive largely determines the morality of the act." If a member of this Society, holding the diploma of a regular medical school, determines to join also a Homeopathic Medical Society, he must have some motive or purpose in doing so, unless he commits such act in aberration of his mind. In this case he could not be held responsible. While your Board deems such conduct of a member highly improper, and while there may be sufficient cause for disciplining him, we also have to admit that a member of this Society has the legal right and the privilege to join other scientific societies, like the Historical, Natural Sciences, or Homeopathic Society, and still retain his membership in the Erie County Medical Society without being liable for expulsion for such action.

Howbeit, if such a case exists in our Society, and the member—as charged in the resolution—should at the present time be of sound mind, his good sense and honor will probably dictate to him to resign his membership, but if he should not do so before the next meeting of the Society, the Secretary should be directed to furnish him with a copy of these proceedings and demand his resignation.

On the second resolution, the Board deems the question rather too vague for opinion. A physician pharmacist might do all named in the resolution without fault and without violating the by-laws and rules of the Society. Many physicians advise and prescribe nostrums and patent or proprietary medicines, and many of the preparations of manufacture of such medicines that are carefully supplied with labels and pamphlets, giving full directions how and for what ailments they are to be used as certain cures, are used by members of the professions, a practice which your Board deems not only highly improper and pernicious, but also very unprofessional.

The Censors are of the opinion that when such *dealing*, as stated in the resolution, becomes an open and distinct medical scandal or heresy, it would come within the meaning of the term "unprofessional conduct."

If, for instance, a member shall undertake to cure incurable diseases, or urge such nostrums and proprietary medicines as infallible remedies, or in any way practice upon the ignorance and credulity of the people to their harm in body or estate, such practice or business, carried on by a member, would be justly considered "*unprofessional*," and constitute cause for disciplining him. Whether it be sufficient cause for expulsion from the Society—meaning expulsion from the medical profession—your Board is at present unable to determine.

If in this case, as in the other, a member of this Society has made himself guilty of such misconduct, and is at present still engaged in the unprofessional traffic in nostrums and patent medicines, he should feel in honor bound to resign his membership in this Society; if not, direct charges should be preferred against him in proper form.

A resolution was passed some time ago by the Society, by which the Board of Censors was directed to inquire into the law that was passed before the medical law of 1880—a law which provided that no practitioner in a county can be a legal practitioner unless he is a member of a legally-authorized medical society. This question has been before the New York County Medical Society, and the legal opinion there was that the law was still in force, and was not nullified by the law of 1880. Relying upon that legal decision so far, we did not deem it proper to incur the expense of legal advice in this locality; we deemed it unnecessary, as this decision is from very good legal authority in New York, and the legality could only be established by a decision of the courts, if a proper case should be brought before them.

The Board holds that the law that makes it obligatory for a practitioner in a county to apply to a medical society of that county for membership, within thirty days after his residence in that county, is still in force, and unless he does so and becomes a member of a legally-authorized society, he is not a member of the profession in good standing.

Upon motion of Dr. Hopkins, the report of the Board of Censors was received and placed on file.

Upon motion of Dr. Crego, the president then appointed the following nominating committee: Drs. Ring, Davidson, Storck, Folwell and W. D. Greene.

Dr. Lynde moved that the secretary be instructed to send each member of the Society a copy of the proposed amendments to the

by-laws, that we may have time to consider them and be prepared to vote upon them at our next regular meeting.

Dr. Coakley reported that the auditing committee found the accounts of the treasurer to be correct.

The following officers, recommended by the nominating committee, were duly elected: Dr. O. C. Strong, President; Dr. J. D. Hill, Vice-President; Dr. William H. Thornton, Secretary; Dr. F. W. Abbott, Treasurer.

Censors: Drs. Edward Storck, H. R. Hopkins, W. H. Gail, P. W. VanPeyma and Charles Wetzel.

Committee on Membership: Drs. T. M. Johnson, E. T. Dorland and F. S. Crego.

Dr. Strong addressed the Society in a few well-chosen remarks, acknowledging the honor of his election as President of the Society.

Upon motion, the meeting then adjourned.

WM. H. THORNTON, Secretary.

There were present at the meeting Dr. E. T. Dorland, President; Dr. Thornton, Secretary; Drs. Abbott, Banta, Barnes, Barker, Bourne, Brecht, Briggs, Brown, Coakley, Crego, J. Cronyn, Dagenais, Daggett, Dambach, Daniels, Davidson, L. P. Dayton, Dorland, Folwell, Gail, W. D. Greene, J. C. Greene, Gumaer, Haberstro, Hartwig, Harvey, Hill, Hopkins, Howe, F. F. Hoyer, B. Hoyer, Ingraham, Keene, E. H. Long, B. G. Long, Lynde, Meisburger, Nott, O'Brien, Pattison, Prior, Putman, C. A. Ring, Wm. Ring, Samo, Storck, Strong, Walsh, Wyckoff, S. W. Wetmore, Rich, Park, Root, Campbell, Wilson, Porter, Vandenbergh, Bingham, Dwyer, Starr.

Translations.

THE CLINICAL SIGNIFICANCE OF URIC ACID DEPOSITS.

Translated from *Nordiskt Medicinskt Arkiv*, by F. R. CAMPBELL, M. D.

Prof. Johannes Mygge, of Christiana, formerly Chief of the Medical Clinic of Copenhagen, observing that abundant and persistent uric acid deposits often coincide or alternate with albuminuria, has undertaken to make a thorough investigation of this subject. In

order to ascertain the frequency of these deposits and the special conditions in which they are present he made daily examinations of the urine of 272 patients in his wards with the following results :

1. Of 3,287 specimens of urine examined, 2,786 coming from 127 patients presented no traces of uric acid deposits. But 501 specimens coming from 105 patients contained such deposits. Among these latter only 262 coming from fifty-nine showed abundant deposits ; in the remainder, the quantity was small and often combined with urates. In forty-three of the fifty-nine patients whose urine gave abundant deposits, these were observed only for short periods, but in the remaining sixteen the deposits were more persistent, being observed for a week or more.

2. The deposits under consideration were observed most frequently in certain diseases, among which the following may be mentioned as the most important: They were detected in three of sixteen cases of acute articular rheumatism, and in two of eleven cases of chronic rheumatism. This same rule may be applied to the transitory deposits which are found very frequently in acute pneumonia—eleven cases in twenty-five.

3. In twenty-seven of the fifty-nine cases the author observed albuminuria coincident with the uric acid deposits and in twenty-two other cases a doubtful trace of albumen is mentioned. It is quite probable that the association of albuminuria with uric acid deposits might have been detected in other cases if an examination for albumen had been made in every case.

4. Deposits (transitory) of uric acid often appear on the cessation of attacks of acute albuminuria, a fact which has already been pointed out by Dickinson.

5. The probability of a relation between uric acid deposits and kidney lesions is indicated by the fact that seventeen of twenty-five cases in which a microscopic examination of the urine was made, morphological elements, coming from the kidneys, were detected. In fourteen cases both tube casts and renal epithelium were observed ; in three cases casts only were found.

It therefore follows that there is a very frequent, if not a constant, association of renal lesions with persistent uric acid deposits, and we may also conclude that transitory deposits indicate a functional derangement of the kidneys.

The explanation of these relations is at present impossible. In some cases we may suppose that the saturation of the urine with uric acid and the consequent excessive acidity inflame the renal epithelium, and produce lesions of the kidneys. In other cases, the renal lesions undoubtedly precede the deposits of uric acid, and here we may perhaps accept the hypothesis recently advanced by Eschbach, who claims that the precipitation of the uric acid is due to the morphological elements contained in the urine. These latter deposits are only found after the urine has been passed several hours, and are of great importance not only in diagnosis but also in determining the treatment. In some cases, the uric acid was detected immediately after the urine was passed, and it is quite probable that the precipitation takes place in the urinary organs. In comparing the patients of the first group, those with uric acid deposits persisting for a week or a month, the author found that of thirty-two well-marked cases nine had infallible signs of renal disease, ten were treated for acute rheumatism, and three each for pneumonia empyæma and dysentery. Nine of the thirty-two cases were fatal. In the case of one an autopsy could not be obtained, but he presented the clinical history of nephritis. Seven of the remaining eight on post mortem examination revealed the presence of renal disease. Four had chronic nephritis and the other three had tubercular kidney, gouty kidney and cancer. In the eighth case no signs of renal disease were evident to the eye, and a microscopic examination was not made. With regard to the clinical history of these thirty-two cases, twenty-one had albuminuria, and in the twenty-five cases in which the urine was examined microscopically the author found tube casts and epithelium without exception.

Uric acid deposits are also connected with desquamation of the vesical epithelium and with certain forms of incontinence of urine. The author has not yet completed his researches regarding these latter questions.

PAROXYSMAL HÆMOGLOBINURIA.

Translated from *Nordiskt Medicinskt Arkiv*, by F. R. CAMPBELL, M. D.

R. Bruzelius, of Stockholm, gives the clinical history of three cases of this disease which he has observed in the Swedish hospitals. These are the only cases that have been observed in Sweden, and

only two have been reported in Norway. Lichtheim, in an article on paroxysmal hæmoglobinuria, mentions two cases which have been observed in Germany; and since the publication of his monograph several other cases have been recorded. The disease is more common in England and France. Murri, of Italy, has also reported several cases. Both sexes are affected and it is met with at all ages, from the infant of two years to the old man of seventy. The first case reported by Bruzelius was that of a woman, aged 27 years, who was attacked with the disease after prolonged exposure to cold. Slight chills, pain in the sacral region, prickling of the skin and urticaria accompanied the disease or preceded it. On two subsequent occasions the malady returned each time after exposure to cold. In one attack the skin became icteric, and it was always observed that the intensity of the attacks was in direct ratio with the severity of the exposure to cold. The sensibility of the patient to cold was quite remarkable. If the hand was held in a cold draft, while the body was protected in a warm room, urticaria was promptly developed on the exposed skin.

The crisis of the disease was always accompanied by chills, elevation of temperature (103° in rectum), perspiration, pain in sacral region, urticaria, icterus, frequent micturition and a heavily-clouded urine, containing albumen, casts and hæmoglobin, but no blood corpuscles. The fever disappears in from three to eight hours, when the urine assumes its normal appearance. In some of the milder attacks, there was a slighter elevation of temperature, and although the urine contained albumen no hæmoglobin was detected. A microscopic examination of the blood in hæmoglobinuria reveals no traces of destruction of blood corpuscles, but the spectroscope demonstrates the presence of hæmoglobin. In March, 1886, twelve years after the first attack, Bruzelius saw this patient. She had had no attack in three years, as she was very careful to avoid exposure to cold, but whenever, by any chance, she became slightly chilled the urticaria returned. In other respects, she was in good health.

The second case was that of a man fifty-two years of age, who had had many times during the preceding five years attacks of hæmoglobinuria following exposure to cold. A host of remedies were tried without success, and the disease continued during the remaining eight years of the patient's life, when he died of fatty degeneration of the heart. There were no evidences of syphilis in the case.

The third case was that of a man, seventy-two years of age, whose disease continued two years when he died of acute pneumonia.

The writer believes the disease to be an affection of the blood where the destruction of the corpuscles is going on in the organs of circulation, and not simply a disease of the kidneys, as is taught by Rosenbach. Bruzelius' cases all resulted from exposure to cold, but other observers have seen it follow bodily fatigue, such as marching. Murri and Schumacher consider syphilis the true cause of the disease. One of the cases of the writer was syphilitic, but there was no evidence of such a complication in either of the other patients.

Medical News.

PASTEURISM IN RUSSIA.—The operations of the Russian Pasteur Institute at Odessa have proved a signal failure. One third of all the patients treated have died, and it seems highly probable that some of the deaths are due solely to the treatment. The following case, from *Novoe Vremia*, will serve as an illustration: In the month of July, 1886, Arthur Stoboi was bitten by a dog supposed to be affected with rabies. The boy was immediately sent to the institute of Dr. Boniville, in Odessa, and was there treated according to the system of Pasteur. On the 9th of November, he experienced a severe pain in the place where the virus had been inoculated by the physician, and, two days afterward, died of rabies. The dog which bit the boy, however, is still alive, and has, up to the present time, shown no symptoms of hydrophobia. We must thus necessarily attribute the death to the treatment alone.

WIDMARK, in a recent examination of the eyes of school children in Sweden, has discovered that at the age of sixteen one-third of all the pupils both male and female are myopic. In the higher schools for young ladies more than half are myopic; in one school sixty-six per cent. had this defect of vision. He concludes:

1. That the percentage of myopics increases directly with the grade of the scholars the rate of increase being greater for females than males.

2. That the degree of myopics increases directly with the grade of the scholars, being also greater for females than for males.

BACTERIOTHERAPY.—Dr. Vineta-Bellaserra publishes in *La Revista de Ciencias Medicas* the results of experiments on the treatment of lupus vulgaris or tuberculosis by means of bacterium termo. Cantani used inhalations of bacterium termo in the treatment of phthisis, and as it is now generally admitted that the bacillus tuberculosis is also found in tissues affected with lupus, the writer considered this the best means of determining whether bacteriotherapy was practicable. Numerous trials were made and although the applications temporarily relieved pain, no permanent beneficial results were obtained.

It is claimed by Dr. M. Naudin, that a drug has been discovered which is an infallible cure for consumption. This is the plant *Mutisia Viciifolia*, which is indigenous in Bolivia. It has long been used by the natives in the treatment of all forms of respiratory diseases, and was probably employed by the Incas themselves. Dr. Sacc has sent the seeds to France where they have been planted in Le Jardin des Plantes and also some of the fluid extract to several European hospitals, so that we may expect a more accurate knowledge of the drug in the near future.

COLLIN, a French veterinarian, in a recent paper on animal obstetrics, cites the following facts, which may be of interest to medical men: "The period of gestation for individuals of the same species varies, but it is found that the duration of pregnancy is the same in the different gestations of the same animal. These facts are well known to stock-raisers, and they can estimate exactly the time of delivery of their mares and cows, excepting in the cases of primiparæ. The duration of pregnancy is shorter for female fœtuses than for male."

M. PAUL LEROY-BEAULIEN gives the following statistics of the consumption of tobacco in Europe. The rate per 1000 inhabitants is, according to him, as follows: Spain, 110 lbs.; Italy, 128 lbs.; Great Britain, 138 lbs.; Russia, 182 lbs.; Hungary, 207 lbs.; France, 210 lbs.; Denmark, 224 lbs.; Norway, 229 lbs.; Austria, 273 lbs.; Germany, 336 lbs.; Holland, 448 lbs.; Belgium, 560 lbs. In other words, the average Dutchman and Flemming use four or five times as much tobacco as the average Spaniard.

PROF. PAJOT, the distinguished French accoucheur, Tuesday, Dec. 20, 1886, resigned the Chair of Obstetrics in the Paris University, and also from active service in the hospitals where he has, for forty-five years, given clinical instructions. His pupils, old and young, combined in expressing their gratitude to their old teacher, and as a token of esteem presented him with a marble bust of himself, executed by the sculptor Charpentier.

DR. S. KALOMIN, director of the surgical clinic of St. Petersburg, Russia, suicided on account of the fatal termination of an operation performed at the request of the patient. His colleagues observed his great depression and assured him that the operation was skillfully performed, but to no purpose as the sequel proved.

THE birth-rate of Buffalo for 1886 was thirty-one and a half per 1000, while in the neighboring village of Rochester it was but sixteen and two-thirds per 1000. There is some grave defect either in the vital statistics or in the fecundity of Rochester people.

THE widow of the late Dr. Von Gudden who lost his life while caring for the insane king of Bavaria has received from the Bavarian government a gift of \$50,000. This is a God-send to her as the lamented doctor was blessed with eleven children, who are all living.

INCREASE OF INSANITY IN THE STATE OF NEW YORK.—There were, on Oct. 1, 1886, in the various asylums of the State, 13,533 patients against 12,707 at the corresponding period of 1885, showing an increase of 826 during the year.

A FRENCH journal reports the case of a medical student who contracted gonorrhœa by sexual intercourse with a woman "*a la bouche*." Such nastiness should be punished by a more severe disease.

L'Abeille Medicale offers a Waterbury watch to each new subscriber for 1887. Only wealthy journals can afford to be so generous to their patrons.

A RUSSIAN journal reports a case of syphilitic infection from a razor in a barber shop.

ONE of our homoeopathic exchanges speaks of the furnace in the Buffalo creamatory.

Selections.

THE UNRECORDED INJURY FROM THE CONTINUED USE OF LARGE DOSES OF IRON.

There can be no doubt about the usefulness of large doses of iron in many different stages of disorders, and cases are on record in which one to three drachms, or even sometimes as much as one and a half to two ounces, of the tincture of iron have been given daily in erysipelas; so also half ounce of tincture of iron has been given daily to young children, followed by satisfactory results.

In anæmia, which is often dependent upon dyspepsia, the best and quickest way of curing both dyspepsia and anæmia is the administration of large doses of the chloride and sulphate of iron. Large doses of iron act as an immediate stimulant, rapidly removing anæmia, and removing gastro-intestinal catarrh, and renew the appetite and digestion; but if continued for more than a week or two, they cause a gastro-intestinal catarrh of their own, and if this be not attended with diarrhoea, or if a purgative be not given, serious symptoms may ensue.

Dr. J. Strahan has had such an experience, and calls attention, in the *British Medical Journal* of September 18, 1886, to the danger of obstruction of the bowels which is apt to follow large doses of iron given for any length of time consecutively. The preparations which he has found to cause symptoms of obstruction are as follows, namely:

Ringer's pill of five grains of dried sulphate of iron, which equals nine grains of the ordinary sulphate, half-drachm and one-drachm doses of the tincture of *mistura ferri composita* P. B., made so strong as to contain eight or ten grains of sulphate of iron and carbonate of potassium in each dose. Any of these, if given three times, or even twice, daily, for from one to two weeks, and if natural or artificial diarrhoea do not in the meantime wash out the quantities of insoluble sulphide, will cause severe colic and constipation, which morphine

and turpentine stupes seem unable even to alleviate, and which, it seems, would continue indefinitely, or till death, if not removed by a smart saline purge, or other means. Dr. Strahan has seen twenty-four hours of rhythmic agonizing pain, very like labor, with nearly constant vomiting, no sleep or ease after a grain of morphine by the mouth, the temperature rising to 101° Fahr., and great depression of all the powers of life, from a couple of weeks' course of Ringer's pill, which had done immense good to the system at large. This has not occurred once only, but dozens of times. As soon as ever a large dose of any saline—Dr. Strahan prefers an ounce of sulphate of magnesia—has well acted, all symptoms rapidly disappear. At this time, and for twenty-four hours after, the stools seemed composed half of dirty water and half of black sand. The author thinks this latter fact explains the pathology of the matter. In fact, it is a real obstruction—an acute one, too—by quantities of insoluble sulphide of iron. The quantity of this black sand, which comes away when severe constipation and colic have occurred, is surprising. It seems to be much more in quantity than the whole iron ingested, although the stools have been jet-black all along, through excreting the sulphide. So, it seems, it must lodge somewhere; perhaps in the cæcum and appendix. Then, when the iron begins to sicken the patient (gastric catarrh), the sulphide concretes by mucus, and forms an obstruction which brings matters to a crisis. The length of time that a patient can take large doses of iron depends on the state of the bowels; if they be kept or remain slightly loose, he does not suffer at all; if he becomes constipated, the iron soon sickens, and the horrible pains begin; if he were to take a smart saline purge once a week, he could go on indefinitely. The saline gives the quickest relief, because it produces such a vast exosmosis of water from the intestinal wall at all points as to dissolve the mucus which binds the sand, and then washes it out. In extreme constipation, it dissolves fæcal lumps in the same way, except when the masses are enormous. It is thus the best purgative where there is a stricture in the bowels, with dilatation above, as it melts the fæces into a fluid, when they can run through the narrow part.

It is also well known to be the only safe purgative if any inflammatory lesion exist, enteritis or peritonitis. Mr. Lawson Tait takes advantage of this property of salines in his modern treatment of peritonitis ensuing on abdominal section. The principle here seems to be

that of giving true and perfect physiological rest by dissolving and washing out all irritants.

Another great advantage the salines have is that they cause no pain, no griping. A teaspoonful of Epsom salts every two or three hours will put an end to many a case of faecal obstruction in old people, and that without pain, where croton oil and drachm-doses of jalap have only given rise to unendurable pain and collapse.

It cannot, of course, be said that large doses of iron will affect every one in the way described, but in the nature of things it seems to be highly probable. There is excellent reason for the practice of giving large doses of iron. Laache, in "The Relation of Recent Researches on Blood-Corpuscles to Anæmia and Leukæmia," (*Deutsche Med. Woch.*, October 23, 1884,) shows that in anæmia it may be both corpuscles and hæmoglobin in proportionate quantity which are deficient, or, as in true chlorosis, while the red cells are diminished, the hæmoglobin is reduced out of all proportion to the loss of red cells. In fact, in the latter condition, what red cells remain are individually "chlorotic," are not red, or, at least, not red enough. Again, after bleeding, the red cells increase much more rapidly than the hæmoglobin, until, assuming it to be evenly distributed among the corpuscles, it has sunk to seventy per cent. of the healthy standard. Now, in such cases, the value of large doses of iron is seen. According to Laache, small doses of iron chiefly stimulate the numerical increase of red cells; large doses restore both the number of cells and the amount of hæmoglobin in each. This explains the difference which most men have noticed in practice between the large and the small dose.—*Therapeutic Gazette*.

INFLUENCE OF DRUGS GIVEN TO NURSES OR MOTHERS ON THEIR SUCKLING INFANTS.

We abstract from *Les Nouveaux Remèdes* of August 1, 1886, the following interesting discussion of Dr. Fehling relating to the influence of certain drugs given to nurses on their suckling babies.

1. *Salicylate of Sodium*.—Dose varying between thirty and forty-five grains. Whenever the child is put to the breast one hour or less after the administration of the drug, the salicylate of sodium can be found in the child's urine. After the expiration of twenty-four hours, no traces of it can be found in the urine. Likewise, the salt cannot be

recovered if the child is put to the breast very soon after the exhibition of the drug. The elimination of the drug terminates simultaneously in nurse and child.

2. *Iodide of Potassium*.—The same results are obtainable. The milk, if analyzed, gives the characteristic re-action. In the child, the elimination lasts seventy-two hours; in the nurse, forty-four hours.

3. *Ferrocyanide of Potassium*.—The re-action is very distinct in the urine of the nurse, but wholly absent in the child's urine.

4. *Iodoform*.—After prolonged application of iodoform upon wounds of the vagina or vulva, iodine can be recovered from the milk and urine of the nurse, but never from the child's urine.

5. *Mercury*.—The transmission of mercury from the nurse to the mother is very slight and inconstant.

6. The influence of the nurse's diet on the child is illusory; nurses can with impunity eat sour articles (lemons, vinegar,) without thereby influencing the child.

7. *Narcotics*.—(a) Tincture of opium in twenty to twenty-five drop doses. Thornhill claims to have observed a prolongation of the sleep in infants, while Fehling saw neither prolongation of sleep nor constipation resulting from it. (b) Hydrochlorate of morphine. The drug given in medicinal doses does not influence the child. (c) Chloral. Dose, fifteen to forty-five grains. Average length of sleep produced in nurse, two hours. No effects on the child are observable if it is strong and vigorous. If the child is weak and possibly born before the full term, it is advisable to wait two hours after administration of the drug to the nurse before allowing it to suckle. (a) Sulphate of atropine. Injected in the usual doses hypodermically in the nurse, the drug produces very distinct physiological effects in the child. The dilatation of the pupils taking place in the child does not disappear before twenty-four hours; hence, minute doses of the drug exclusively are permissible.—*Therapeutic Gazette*.

LATE DISCOVERIES.

The medical journals for the last ten years have given accounts of wonderful discoveries in surgical science and of their application in practice—the filling up of large, deep wounds with sponge, and the organization and assimilation of the latter; skin grafting, bone grafting, and the successful adjustment and regrowth of fingers. Recently

two other wonderful discoveries have been reported. One is the organization of rubber within the animal tissues; the other, the organizing of blood-clots, their formation into new tissue, and the application of them to the surer and better healing of surgical wounds.

As to the first, it appears that Prof. Vanlair, of France, had, in a certain case, inserted a drainage tube, of ordinary grey vulcanized rubber, one and one-fourth inches in length and one-fifth in diameter, and that this, at the end of seven months, seemed to have undergone partial absorption.

But on examining it with a microscope, it was found that the substance of the rubber had become truly organized; that the lower end of the tube had become truly assimilated to the surrounding tissue, and had wholly lost its original form; that the part of the tube next above this had lost its original shapeless appearance and had acquired a complex structure, showing fine connecting tissue fibres, with cells of various forms between them, and very numerous capillary blood vessels.

The other discovery was by Schede, a German expert. The *Boston Medical and Surgical Journal* says: "His reported results are almost marvelous; the blood fills the wound-cavity completely, clots and is gradually replaced by permanent tissue formation. By this method resection (amputation) of large joints has healed by primary union, and large portions of the articular ends of bone have been removed without impairment of their articular function. Two hundred and forty-one operations are recorded by Schede, nearly all of which have healed under one dressing by primary union.

The operations included the amputation of forty large joints, with thirty-seven recovering, with no change of dressing and no leakage. The wound having been duly prepared, the blood is let in and left to organize, the whole being covered with protective silk and other dressing.—*Ex.*

HYPODERMIC INJECTION OF EUCALYPTOL IN PHTHISIS.—Roussel (*Allg. wiener Med.-Ztg.*) reports favorable results following this treatment; purulent sputa became mucous, the appetite and strength returned, and the cough was relieved.—*N. Y. Medical Journal.*

Editorial.

CEREBRAL SYPHILIS.

That syphilis ever attacks the nervous system seems to have been entirely overlooked by the early writers, and when it was at last discovered "that various nervous complaints, such as paralysis, epilepsy and insanity frequently occurred in those who had previously suffered from the more ordinary forms of constitutional syphilis, this was explained by the convenient figment, a metastasis having taken place from the skin and mucous membrane." This, doubtless, was the notion entertained by Hunter, Astley Cooper and others, who "stated plainly that the brain, as well as the other internal organs, were unsusceptible to the venereal poison," for they could not have denied the fact that syphilitics had peculiar cerebral manifestations. Again, there were those who would explain the peculiar symptoms of the convulsive form of this disease by the vitiated blood sent to the brain, as in uræmia, rather than by any organic change. That syphilis does attack the brain, spinal cord and nerves, is now well established. Whether it was of so frequent occurrence in early years, and not recognized, or whether the disease did not exist, it is difficult to state. Certain it is that this nervous system of our times is more susceptible to disease than formerly, and entirely new forms of troubles are seen. This might explain the so frequent occurrence of the disease at the present time. The literature on this subject is extremely meagre, considering all that has been written on the malady itself. Althaus says that during his studies among the universities of the Continent in 1853 to 1855, he never heard any reference to syphilis of the brain by such masters as Romberg, Von Baerensprung, Sigmund, Skoda and Oppolzer. He says: "The only man who, about that time, knew that the brain was liable to specific disease, was Professor Waller, of Prague, whose lectures I attended in the summer of 1856. He told his hearers then that he had seen

red and white softening, and a deposit of solid effusions in the white as well as the grey matter of the brain. According to him, the symptoms during life were indistinct, and we could only diagnose cerebral syphilis where the patient suffered at the same time from external manifestations of the distemper. He had known patients in the later stages of the disease to suffer from epilepsy, paralysis and mental hebetude ; but the brain might also suffer, at an early period, synchronously with the ulcerated throat, and he had seen cases in which a most violent form of headache was the principal symptom, and where the patient, in spite of active treatment, had died comatose. I believe that these observations of Waller have never been published, and what I have just mentioned is culled from notes which I took at the time his lectures were delivered." As to the impossibility of diagnosis without external manifestations, this may hold good even at the present time in some forms, while in others the diagnosis is positive without any such assistance, many cases appearing as the only secondary or tertiary manifestations the patient has ever had. In 1860, we had a number of independent and excellent treatises on this subject by Lagneau, L. Gros and Lancereaux, Lambaco and others. They were defective in that the various forms were confused, and as the pathology was only made clear at a later date, it was necessarily defective. Along with the pathological researches of Virchow in 1869, and Heubner in 1874, came a better understanding of the disease. "These researches may, each in its own way, be considered as landmarks in the history of cerebral syphilis. The foundations of the doctrine were now securely laid, so as to be beyond cavil ; and it became clear that, although subsequent work might amplify our knowledge in this respect, it could no longer reverse what was once firmly established. The features of this work is, that the peculiar and specific alteration which occurs in the brain as a consequence of constitutional syphilis is not inflammation, but that it bears throughout the character of a neoplasm. This neoplasm may be deposited in any membrane of the brain, forming a tumor or gumma, or it

may be so deposited around an artery as to act as a thrombus." It may be deposited in the brain tissue itself, but that encephalitis may follow is a mooted question. Althaus says the great majority of cases are either gummatous or thrombotic in character. He does not call attention to the fact that both of these forms may exist in the same case, each causing a different chain of symptoms, which, unless duly considered, will cause considerable trouble in our diagnosis. The writer, who has seen twelve patients suffering with this disease within an incredibly short time, had one in which both of these pathological conditions obtained in the same patient. At times, while under treatment, the one set of symptoms seem to predominate, and again the other would gain the mastery. In 1879, Forunier published a most admirable treatise on this subject, and since this time, much has been said concerning this disease, especially in the French journals. The claim was made by him, and re-asserted by Althaus in a recent article, that fully eighty per cent. of brain diseases occurring in all patients between the ages of twenty-five and forty, are actually owing to this distemper. While this is exceedingly large, we must admit that this is the cause of an alarming number of brain diseases. "Forunier has distinguished six different forms of it, viz.: the cephalalgic, the congestive, the convulsive or epileptiform, aphasic, the mental, the paralytic; and his description of the symptoms which occur in these several forms is more minute and exhaustive than any other which has been given before, and will, on that account always remain a monument of able, painstaking industry. A disappointing feature of Forunier's work is that it does not generally point out clearly the connection which exists between clinical signs and pathological lesions, and appears to be only slightly acquainted with the modern doctrine of cerebral localization, which just in this department of clinical medicine finds its most interesting and striking practical applications." Dr. Althaus has given us one of the finest treatises on the subject of syphilitic coma and syphilitic hemeplegia, published in the *Medical Record* in October. It can be truly said that syphilitic

coma was little understood before. So far as my observation goes, the convulsive or epileptiform is the most frequent and next the cephalalgic, the paralytic, the aphasic, the mental and coma occurring in frequency in the order mentioned. The cephalalgic variety is frequently a prodromic of the other forms, and may precede them many weeks, or even months. This pain comes on at night, is localized, and has several characteristics, "according to a judicious observer :

1. A severe pain, with a sensation of weight.
2. Constrictive pain, seeming to the patient as though the head were about to split open.
3. Pains, as if from blows with a hammer ; instantaneous, and extremely severe."

This form often disappears of itself, only to return in the same manner as at first, and with increased severity.

Syphilitic coma, as has been said, is rare, and as it is little understood at the present time, we give Dr. Althaus on this subject entire :

"That coma, coming on more or less suddenly in an apparently healthy man, or in one who shows at the time unmistakable symptoms of venereal disease, may be a manifestation of this latter distemper, is not generally known in the profession. We are all familiar with uræmic, alcoholic, and diabetic coma : with the coma of cerebral hemorrhage and that of opium-poisoning ; with that which occurs after the epileptic fit ; with or after severe hysterical, and hystero-epileptic convulsions ; after prolonged exposure to extremes of temperature, whether heat or cold ; after erysipelas of the face and head from compression of the brain by a depressed fracture of the skull, by extravasated blood, meningitis, and the presence of pus and other products of inflammation. Nor must we forget that several chronic affections of the nervous system, more especially tabes spinalis, and general paralysis of the insane, are apt, toward their termination, to be attended by attacks of coma. Most of these conditions are described in the text-books, while syphilitic coma is not even mentioned. Forunier is almost the only author who has pointedly,

although shortly, alluded to this condition, and related an example of it which occurred in his practice. A knowledge of syphilitic coma is, however, of great practical importance, inasmuch as it requires an entirely different treatment from that of other forms of coma, and an incorrect diagnosis is in such a case likely to seal the fate of the patient.

" I have seen, altogether, eight unmistakable cases of syphilitic coma. They all occurred in males between twenty-five and forty-two years of age. In every one of them was there a definite history of primary and secondary syphilis ; in four there was at the time a specific rash on the scalp and other portions of the skin ; and in one an ulcer in the tongue. In one case the coma appeared eight months after infection ; in six between three and five years, and in one case seventeen years afterward. In two cases no other cerebral symptoms had occurred before the coma, while six other patients had at various times suffered from giddiness, epileptiform convulsions, and transient loss of power in the limbs.

" Among the exciting causes of the attack I have noticed overwork, anxiety, trouble, and sexual and alcoholic excesses. In two cases no exciting cause whatever could be ascertained. Six of the patients were professional men, and two were men without any regular occupation.

" The symptoms of syphilitic coma I venture to classify as, first, premonitory signs ; second, symptoms of the initial stage ; and third, symptoms of the final stage of coma.

" 1. I have noted the following premonitory symptoms of the attack of coma ; headache, a feeling of confusion and drowsiness, indistinct utterance, a perception of black specks floating before the eyes, with sudden loss of sight for a short time, numbness in the limbs, and some loss of muscular power. In six cases such symptoms occurred either a few hours, or a day or two, before the attack, while in two other cases they appeared to have been entirely absent.

" 2. The initial stage of syphilitic coma appears to set in habitually during sleep, the patient being discovered by his

friends or servants in the morning in a state of apparent insensibility, from which he cannot be roused. He is lying quietly on his back, apparently quite unconscious, and, as it were, in a profound sleep. He is evidently not suffering any pain; he does not moan, throw himself about, or put his hands to his head. The face is absolutely devoid of expression; there is a complete blank, and no distortion of the features. The complexion is generally pale. Sometimes he can be roused by shouting to him; he may speak a word or two, and appears to recognize the voice of a friend better than that of a stranger. When asked whether he can see you, he may answer that he is blind. When requested to put out his tongue, he is seen to make an effort to do so. Sometimes the only response is a movement of the lips; at other times the tip of the tongue is protruded, which is then seen to be dry, and covered with a whitish fur, through which some few red papillæ are seen to project; but it is not deviated to the side. When food is put into his mouth, the patient makes an effort at deglutition, and generally succeeds in swallowing small quantities of fluid. The eyes are closed. On opening the lids, the eye-balls are seen to be deeply retracted into the orbit, one sometimes more so than the other; and they are seen to diverge somewhat in their direction, which imparts to them a particularly dazed and stupid expression. The deeper the coma, the greater is, *cæteris paribus*, the degree of divergence. The pupils are small and insensible to light. On account of the position of the eyes, an ophthalmoscopic examination is generally not practicable, but reveals nothing unusual when practiced. The reflex excitability of the conjunctivæ is either very much blunted or entirely gone. The breath is sometimes offensive.

“The muscles of the limbs and the body are in a state of perfect relaxation. The body will retain any position which is given it. On lifting the arms or legs, no resistance is encountered; and on dropping them, they flop back heavily by their own weight, like inanimate matter, as in a dead body from which rigor has disappeared. There is no difference at all between the two sides of the body; no appearance of hemiplegia, or rigidity,

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or tremor, but a dead level of paralysis, with complete loss of muscular tone, everywhere.

“Sensibility and reflex excitability are greatly diminished, or quite gone. I have already mentioned that the conjunctival reflex is lessened or absent, and that there is no light reflex in the pupils. Tickling the soles or the knees produces no withdrawal of the legs; but on smartly pricking the skin with a pin, there is generally a slight response. Where the coma is not very deep, the patient may express, by a grunt, his dislike of the proceeding. The deep reflexes or tendon phenomena are either absent, or can only be elicited with considerable difficulty, and then appear slight and sluggish.

“There is, either from the first or very soon, incontinence of the excretions, especially of the urine, which is apparently secreted much in the usual manner, and dribbles away as it reaches the bladder, through paralysis of the sphincter. The fæces are also apt to come away involuntarily, but occasionally there is obstinate constipation, which only yields to powerful purgatives or enemata, and the evacuation then takes place into bed, the patient having no sensation of its coming away, and being unable to give a warning.

“The pulse is habitually slow, beating at the rate of forty, fifty, or sixty in the minute. In one case I have known it to go down to thirty-six, while in another it was eighty-six. The quality of the pulse varies in the different cases; it may be hard and wiry, showing the sphygmographic signs of increased tension, or tolerably full, or small and feeble, when the sphygmograph indicates low tension.

“Respiration is slow and shallow, the excursion of the chest-walls and diaphragm being insignificant. The rate of inspirations varies like that of pulsation, but is generally less than in health. The average rate appears to be from eight to ten.

“The temperature is below the average, and ranges habitually between 96° and 97° . In one case I have known it to go down to 95° .

“In two cases there was an eruption of herpes in the face, large groups of vesicles being formed on inflamed patches on both cheeks. On the first day the liquid was clear; on the second it became opaque, and the epidermis then gradually peeled off in small patches. Otherwise the skin is generally dry, there being little or no perceptible perspiration.

“What is the condition of the brain in the cases which I have just described? It is evidently a complex one, for while we have, on the one hand, symptoms of paralysis, there are, on the other hand, signs of irritation of the nervous centres. The loss of consciousness, and of voluntary motion and sensation, shows that the function of the cineritious substance of the hemispheres, and notably that of the frontal and temporal lobes and of the central convulsions, is in abeyance; while the state of the pulse, the respiration, and temperature shows that the cardiac, vaso-motor, respiratory, and thermic centres in the medulla oblongata and the pons Varolii are in a state of irritation. Such a coincidence of paralysis and irritation is by no means so singular as it might appear at first sight, if we consider the various degrees of excitability which exist normally in different portions of such a highly complex organ as the brain is known to be. Of all parts of the encephalon, the gray cortex is the most highly vitalized, and the one that requires the most active circulation of the blood, the most incessant supply of oxygen, in order to be able to properly discharge its function. Any interference with the supply of arterial blood to the cortex, however temporary, acts like a blow with a hammer on a magnet, that is to say, it destroys its function for the time being by suddenly disturbing its molecular condition. In poisoning by carbonic acid, there is at first a short stage of irritation of the cortex, shown by headache, giddiness, and noises in the head; but this is rapidly succeeded by depression, consciousness being lost and a state of coma induced. At this time, however, there is still irritation of the medulla, shown by a slow pulse, increased blood-pressure, and convulsions, and this stage is only eventually succeeded by paralysis, when respiration becomes feeble, the blood-pressure

falls, and death results from apnœa. That in patients suffering from syphilitic coma there may be a short stage of cortical irritation, is rendered probable by the premonitory symptoms which I have mentioned, such as headache, giddiness, and a feeling of confusion.

“A coincidence of depression and irritation may be observed in much less complex structures than the brain. Thus we have, in the early stage of an acute attack of sciatica—whether of rheumatic or traumatic origin—on the one hand, symptoms of depression, viz., numbness in the foot and loss of power in the muscles supplied by the sciatic nerve; and, on the other hand, concurrently with them, symptoms of irritation, viz., acute pain in the whole or part of the limb, and convulsive twitches in the muscles which are under the influence of the suffering nerve.

“That there is irritation of the lower centres in the first stage of syphilitic coma seems to me to be proved by the slow pulse, the increase of blood-pressure which is present in the majority of cases, the retarded respiration, the lowered temperature, and finally by the state of the pupil and of the ocular muscles. There is a centre for these latter parts in the posterior portion of the floor of the third ventricle and the aqueduct of Sylvius, and, therefore, an intimate connection with the upper portion of the pons Varolii, which has by Hensen and Voelcker been shown to have definite relations to the iris and the other muscles of the eye. Irritation of this centre would explain the contraction of the pupil and the different forms of ocular spasm which are found to be present in syphilitic coma; just as paralysis of the same centre is known to lead to the different forms of ophthalmoplegia.

“The initial stage of syphilitic coma lasts in general from two to five days, and is followed either by recovery, or merges into the final stage which leads to death. In the former case the patient gradually begins to show signs of returning consciousness; he opens his eyes from time to time, moves them about in different directions, and recognizes the people about him. He regains his command over the sphincters, and calls the nurse

when desiring to pass his excretions. The power of swallowing is improved ; he begins to take food with some amount of relish, recovers his muscular power, sits up in bed, has natural, refreshing sleep followed by wakefulness, and presently wants to get up, and begins to go about again. In ten days or a fortnight he may apparently be well, and able to resume, at least to some extent, his previous occupations.

“ In other cases recovery is more slow and imperfect. The speech remains indistinct and halting, the memory is weak. An hour after having seen a person or read a newspaper, the patient remembers nothing about it. The power of moving the eyes freely remains impaired. He does not seem to take much interest in his affairs, or show much affection for his family. At times, however, he appears to realize his position acutely, and bursts out crying, while at other times he is absent-minded and drowsy.

‘ All is but toys ; renown and grace is dead ;
The wine of life is drawn, and the mere lees
Is left this vault to brag of.’

Eventually, however, even in these less favorable cases the brain power may be more or less restored, showing but little deterioration compared with what it was previous to the attack.

“ This is the bright side of the picture ; and, as recovery generally takes place in consequence of an energetic specific treatment, the doctor may well take credit to himself for having saved his patient’s life or reason. But there is also a darker side, since in some cases all the resources of our art prove unavailing. The patient then, after having been for a few days in the condition previously described, gradually sinks into what I propose to call the *final stage* of syphilitic coma.

“ 3. This stage is characterized by an intensification of the symptoms of unconsciousness, loss of voluntary power, sensation, and reflex excitability ; while the signs which I have referred to irritation of the pons and bulb now pass into such as denote a paralytic state of these organs. The face is livid and cyanosed ; the conjunctivæ are injected, covered with shreds of mucus, and in-

sensible to touch or irritation. The mouth is wide open, from paralysis of the masseter muscles, causing the lower jaw to drop. The breath is fetid; the power of swallowing lost. There is either excessive secretion of buccal mucus, or great dryness of the lips, tongue, and cavity of the mouth, which are often covered with sordes. The surface of the body is bathed in clammy sweat. The pulse, where it has been hard and wiry, rapidly loses that character, and becomes small, feeble and very quick, going up to 140, 180 and more. It eventually cannot be counted, and shows sphygmographically the characters of collapse, there being only a very slight elevation followed by a proportionate depression, but without waves, aortic notch or diastolic. Respiration from having been retarded, is now accelerated, with thirty to forty and more inspirations per minute. It may become stertorous, and pass into Cheyne-Stokes type; or neurolytic catarrh of the air-passages sets in, with excessive secretion of bronchial, tracheal, and laryngeal mucus, while on auscultation râles are heard all over the chest. This may pass into hypostatic pneumonia, when the mucus becomes tinged with blood. At the same time, the temperature is found to rise from 95° and 96° to 104° , 106° and 108° . The pupils become enlarged, and show their maximal dilatation at the moment of death. Eventually, the face assumes the Hippocratic expression, and is occasionally so altered within a few minutes that the patient's friends have a difficulty in recognizing him. This stage generally lasts from twenty-four to thirty-six hours, and terminates in dissolution; the patient passes away to

‘ The undiscovered country from whose bourne
No traveler returns.’

“Of the eight cases of syphilitic coma which have fallen under my observation, six ended in recovery, and two in death, in the first attack. In three of those who recovered from the first attack, however, relapses took place after some time, and one of these latter patients eventually died, after having survived five such attacks in three years.”

As to prognosis, we were formerly led to believe that this disease, in any form, was always fatal. It was contended later that only one-third recovered, while now, from experience and the literature on the subject, we conclude that it is curable in over sixty per cent. of the cases treated. As to treatment, we must keep in mind, always, the impoverished state of the brain and the probability of disturbances of digestion. With these in view, we are ready to administer anti syphilitic treatment. Chief among the drugs is iodide of potash, in large doses, commencing at thirty grains, increasing rapidly until we get iodism. To do this, we may need to give as large as fifty to sixty grain doses, three times daily. If disturbances of the stomach arise, we may administer the drug partly before meals and partly after. The combination with carbonate of ammonia is a favorite way of administration ; with this it is said to increase the effect of the drug three fold, the proportion of the ammonia being about one to three in ordinary doses, but, of course, it cannot and need not be increased like the potassium iodide. Mercury in various forms, preferable by inunction, should be vigorously employed from time to time.

GOOD SAMARITAN EYE AND EAR INFIRMARY.

The annual meeting of the trustees of this institution was held last month for the election of officers and the reception of the surgeon's report. The regular officers of the board were elected as follows: President, T. V. Dickinson; vice president, Albert Jones; secretary, W. H. Slocum; treasurer, A. A. Hubbell. Dr. R. L. Banta of this city and Dr. John O. Roe of Rochester were added to the consulting staff, and Dr. F. H. Potter was appointed surgeon to the throat and nose department, which was made separate from the eye and ear department. Heretofore, the entire surgical management has been under Dr. A. A. Hubbell, who has most faithfully given daily attention to those who have applied for treatment, but on his own recommendation the service was divided into two departments. This

infirmery has been in operation since August 1, 1882, and has been doing a good work in administering to the *worthy poor*, and these alone. Patients are received for free treatment, but only on giving evidence of their inability to pay for services, or on the recommendation of physicians, thus avoiding that abuse of medical charity which is too frequently a just cause of complaint. With the support that the infirmery receives from the medical profession, and with the new accessions to its medical staff, its increased usefulness is assured for the future.

Dr. Potter, the surgeon of the throat department, has just returned after a prolonged course of instruction under Professor Shurley, of Detroit. He has relinquished general practice, and will limit it to this specialty, in which he is well qualified.

THE PHARMACEUTICAL USES OF SACCHARIN.—“There seems to be good reason for believing that saccharin has no injurious physiological action when taken internally.

“Sir Henry Roscoe has stated that large quantities have been given to dogs, and one dog had as much fed to him daily as was equivalent in sweetening power to a pound of sugar, and did him no harm. Up to the present time it has not been known to produce any injurious effect upon the system, and will, therefore probably be more employed in pharmacy. Mr. C. J. S. Thomson, of Manchester, publishes, in the *Pharmaceutical Journal* for October 23, 1886, the following notes of some rough experiments made with a view of ascertaining how far the new sweetening principle (saccharin) may be of use in this way. He finds that one per cent. solution of saccharin in hot water, although very sweet to the taste, has a flavor distinctly different from that of cane-sugar. Ninety minims of this solution added to one containing four grains of sulphate of quinine quite marked the bitter taste of the alkaloid and rendered it palatable.

“Thirty minims of the same solution sweetened half a drachm of tincture of iron, and it required twenty minims to cover the salty taste of ten grains of bromide of potassium.”

The JOURNAL, some weeks since, published an article on this subject. Since then the Editor has received various communications from physicians asking where it can be obtained. It is learned that in a short time it will be put upon the market.

CONGENITAL OCCLUSION OF THE POSTERIOR
NARES.

Editor Buffalo Medical and Surgical Journal:

DEAR SIR—In my paper on "Congenital Occlusion of the Posterior Nares," published in the December number of the JOURNAL, I stated that I was unable to verify a case of Gosselin, referred to by Dr. Geo. M. Lefferts, of New York, in the "*International Encyclopædia of Surgery*," and therefore did not include it in my report. Dr. Lefferts has since very kindly informed me that the date in the reference in the *Surgery* was printed "1877," whereas it should have been "1876." The original report of the case may be found, therefore, in the "*Gazette Medicale de Paris*," at page 430, of number 36, September 2, 1876.

This case was a girl seventeen or eighteen years of age, with "unilateral obstruction by the posterior nasal fossa," who had had symptoms of impaired respiration, "felt by the young patient as if she had been suffering from a coryza." Attempts were made in vain to pass sounds, or to inject water through the affected side into the pharynx. By carrying the finger behind the velum palati to the point where the posterior opening should have been, Gosselin became "satisfied of the presence of a resisting plane," and he concluded that "there was an obliteration similar to the one which M. Bitot had spoken of." No operation was performed, although he thought one justifiable. He does not state on which side the obstruction existed, nor does he inform us whether it was bony or membranous, but I infer that it was bony.

This gives me a total of eighteen reported cases, and adds one more to the number of cases of complete bony (?) occlusion, limited to one choana.

Yours truly;

ALVIN A. HUBBELL, M. D.

Reviews.

A Treatise on the Practice of Medicine for the use of Students and Practitioners of Medicine. By ROBERTS BARTHOLOW, M. D., L. L. D., Prof. Materia Medica and Therapeutics, Jefferson Medical College, etc., etc. Sixth edition, revised and enlarged. New York: D. Appleton & Co. 1886.

Bartholow's "Practice" is so well known and so generally esteemed that any criticism on the work itself is unnecessary. Indeed a book which reaches a sixth edition within six years needs no commendation. In this last edition some new chapters have been introduced, but the amount of new material is not large. Those who have the fifth edition will not find it necessary to purchase this one. Those who have not, can buy this last edition with the assurance that they will obtain the latest information upon any subject within its scope. The value of the work lies in its eminently practical character.

An Epitome of the Newer Materia Medica, Standard Medicinal Products and Finer Pharmaceutical Specialties, introduced and manufactured by PARKE, DAVIS & CO., Detroit, Mich.

The profession is indebted to Messrs. Parke, Davis & Co., for the introduction into this country of many valuable remedies and also for much valuable information concerning them. The present volume contains certainly the best resumé on the subject of new remedies obtainable by the general practitioner. With the enterprise characteristic of the firm, they offer to send free to any physician applying for it, a paper-bound copy of the book. We would recommend all our readers to send for it.



VOL. XXVI.

MARCH, 1887.

No. 8

Original Communications.

*LATE LIGATION OF THE CORD.**

By J. W. KEENE, A. M., M. D.

It has been my fortune several times, when ligating the cord immediately after the birth of the child and before cessation of pulsation in the umbilical arteries, to observe most manifest evidences of discomfort and suffering on the part of the newborn. It has been my custom obeying the teaching of a most conservative obstetrician, the late Dr. Buckingham of Boston, to wait for the pulsations to cease before tying. But many cases occur where a real or fancied necessity exists for disregarding this rule; and in such cases the observation above noted has obtained in every instance, unless the child was asphyxiated or otherwise unable to manifest its suffering. Presumably this is the general experience of the profession, although not mentioned in any book consulted.

As to the propriety of tying the cord at all, the warfare has been hot and protracted, but at present in most civilized nations, and among savage tribes as well, the custom of tying prevails. Indeed, from the earliest times and among the most primitive

* Read before the Buffalo Obstetrical Society.

people, as well as among those more advanced in civilization, tying the cord has been practiced as a readily-suggested means of preventing or arresting hemorrhage. Those astute physicians who base so many excellent theories on the incontestable fact that man is an animal, and, therefore, will or should behave under similar conditions just as a frog or a rabbit does, have denied that ligation is necessary. Cats and rabbits, cows and mares do not ligate the cord, it must be confessed, but the cord torn by the teeth or broken by the fall does not bleed. In street births, and similar accidents in which the cord is pulled asunder by the weight of the falling child, no hemorrhage occurs, and for the same reason. Among some savage races, too, the cord, sawed by a shell, a flint knife, a piece of split bamboo or a rough leaf-stalk, does not bleed even when not tied. Still, the custom of tying is very generally practiced.

Having decided, then, that it is better to tie than not to tie, another opportunity for a contest presents itself—a slender one to be sure, but, nevertheless, a chance for dispute not to be ignored by the disputations. Shall we tie and cut, or cut and tie? Pajot taught that the latter is the proper sequence, even allowing some blood to escape. Cazeaux cuts and then pinches the end to prevent hemorrhage till the ligature can be applied. Recent authors are quite unanimously in favor of tying before cutting. Asphyxia and accidents incident to delivery may render it advisable or necessary to reverse the order. All have witnessed the beneficial effects of allowing a teaspoonful of blood to escape from the funis when asphyxia has induced an apoplectic condition in the child.

Is it necessary to ligate the placental end of the cord? Here again is a chance for opinions to differ, and the opportunity offered has not been neglected. The warmest advocates of the second ligature hold that cleanliness, if no other reason, demands its use. It seems to me that the ounce or two of blood escaping from the placental end of the cord is hardly a material addition to the abundance of blood and serum, meconium and fæces which invariably and inevitably marks the gory scene of

the obstetrician's battlefield, from which he retires victorious or may be baffled or defeated, but seldom in disgrace or without glory. Certainly, in twin deliveries the second ligation is necessary or at least advisable. In this the authorities are quite at one. When, therefore, we have all become infallible in diagnosing twin births, we may safely omit the second ligature except in such cases. Till that time arrives, it will be better to apply the second ligature. It undoubtedly aids in the separation of the placenta. At the same time, it increases the bulk which must pass the rapidly-contracting cervix when detached. This, however, is probably a theoretical rather than a practical disadvantage, since when once separated, the placenta can empty itself of blood into the cavity of the uterus. It certainly is not necessary when the placenta is detached and lying in the vaginal canal.

When should the ligature be applied? The ancients who were not imbued with the manifold excellences of Credé's manipulation, deferred ligating till the placenta was expelled.

Winkler, 1872, from anatomical considerations alone, advised this course on the ground that by delay a portion of placenta blood would pass to the child, increasing by so much its powers of resistance. He suggested further that this practice might diminish the usual loss of weight observed in the new-born during the first few days of its life. This has been confirmed by the observations of Hoffmeier, Ribémont, Budin and Zweifel.

Budin cites Mauriceau, Clément and Deventer as advocating this plan, but at the same time hastening delivery by artificial means.

In quite a number of cases in which I have adopted it, the plan has proved very satisfactory. One point greatly in its favor is, that the accoucheur is at liberty to follow down the uterus himself instead of delegating that duty to another at the most critical time to the mother during the delivery. But in view of experiments soon to be cited, it may be an injudicious procedure if used in connection with Credé's manipulation.

While it may not be necessary or advisable to defer the application of the ligature till the complete expulsion of the placenta has occurred, the prevailing custom of applying it immediately upon the birth of the child cannot be too strongly deprecated.

A warning cry against precipitate action has again and again been raised.

In 1773, Charles White wrote as follows: "The common method of tying and cutting the navel-string the instant the child is born, is likewise one of those errors in practice that has nothing to plead in its favor but custom. Can it be supposed that this important event, this great change which takes place in the lungs, the heart and the liver from the state of a *fœtus* kept alive by the umbilical cord to that state when life cannot be carried on without respiration, whereby the lungs must be fully expanded with air, and the whole mass of blood, instead of one-fourth part, be circulated through them, the ductus venosus, foramen ovale, ductus arteriosus, and the umbilical arteries and veins must all be closed and the mode of circulation in the principal vessels entirely altered—is it possible that this wonderful alteration in the human machine should be properly brought about in one instant of time, and at the will of a bystander? Let us but leave the affair to Nature and watch her operations, and it will soon appear that she stands not in need of our feeble assistance, but will do the work herself at a proper time and in a better manner. In a few minutes the lungs will be gradually expanded, and the great alterations in the heart and blood-vessels will take place. As soon as this is perfectly done, the circulation in the navel-string will cease of itself, and then, if it be cut, no hemorrhage will ensue from either end."

So, too, Braun, after describing the changes from the *fœtal* to the post-natal circulation, says: "This stupendous process should be taken into consideration in every case of labor, and because of it the cord should never be severed or tied so long as pronounced pulsations can be felt near the navel."

Nägele advised waiting until the pulsations have ceased. Schroeder, Verrier and Porak share this belief. Stoltz recom-

mends waiting until respiration has begun. This view is favored by Hélot of Rouen, and Lusk inclines toward it.

The experiments of Budin, made in 1875 at the suggestion of Tarnier at the Maternité of Paris, are of the greatest interest in this connection. In two series of seventy-five cases, first, where the cord was tied immediately, and second, where it was not tied for several minutes, the amount of blood escaping from the placental end was measured and found to be nearly three ounces less in the second series than in the first. This startling result led him to state that, "to tie and cut the cord directly following delivery, is to prevent the fœtus from drawing 92 grammes (3 ounces) of blood from the placenta, which is equivalent to bleeding an adult to the extent of 1,700 grammes" (60 ounces). If we take Welcker's estimate of the amount of fœtal blood (one-nineteenth of its body weight), the figures assume a yet more appalling proportion. It is probable, however, that Welcker's estimate is much too low. He would allow a child of 7 pounds weight rather less than 6 ounces of blood. The loss of 3 ounces to such an individual could hardly fail to be disastrous. Dalton estimates the quantity of blood at one-eighth the body weight (in adults); this would give the child of 7 pounds 14 ounces of blood. Kirkes' estimate of one-twelfth to one-fourteenth would give the child eight to nine and a third ounces—probably a nearer approximation to the fact than either Welcker's or Dalton's. This seems to be about the estimate on which Budin based his comparison.

These experiments have been abundantly confirmed. Schücking in 1877, and Hélot (of Rouen) at about the same time, modified the experiments of Budin by weighing the child with the cord intact as soon as born and observing the changes till respiration was well established. It was found to gain on the average 53 grammes—(Hélot) 14·5 ounces, or 62 grammes; (Schücking) 21·5 ounces. At the lowest estimate, then, the child whose maternal connection is severed immediately after birth is deprived of nearly 1·6 of its possible blood supply, or, to resume the comparison of Budin, an amount equal to bleed-

ing an adult weighing 180 pounds $3\frac{1}{3}$ pints. It must be borne in mind, too, that the loss is probably greater than this, for a part of the placental blood will have passed to the child before the weight can be determined. Budin and Schüeking, who have been foremost in making these experiments, have been led to the same conclusion, viz.: that late ligation ensures an increase of blood to the child. As to the mechanism by which this passage of blood to the foetus is effected, they hold opposing views. Budin claims that the first inspiration induces a condition of negative pressure—a suction force—which draws the blood into the newly-established pulmonary circulation, and that this thoracic inspiration continues until an equilibrium is established. Schüeking holds, on the contrary, that after the first inspiration, this negative pressure ceases, and that further additions to the child's blood supply are caused by the compression exerted by the retraction of the uterus aided intermittently by its contractions. Now, if the latter view is the correct one, the uterine forces so variable in their intensity may, when specially active, drive into the child's circulation a volume of blood in excess of its requirements, and thereby do harm; and especially if these forces are assisted by the hand-exercising compression, according to the method of Credé. Illig, of Kiel, reports a case in which the expressed placenta was forcibly squeezed, driving its contents into the circulation of the child and producing death from over-distention of the heart. It seems possible that the same effect might be produced by practicing uterine compression with the cord intact. That the natural uterine forces alone are capable of producing this disaster, seems to be disproved by the manometric observations made by Ribémont. He found the pressure in the umbilical arteries uniformly greater than in the vein, and that after the pulsation had ceased in the arteries the force of the uterine contractions was insufficient to force the blood to the child through the umbilical vein. That thoracic aspiration exists as an active force, there can be little doubt. The physiological requirements of the child are increased instantaneously by the filling of the

lungs with air. This demand must be instantaneously met. We can hardly conceive theoretically of any way in which this can be done so readily as by the exercise of a negative pressure or suction force. On this hypothesis, too, only enough blood to meet the child's needs can pass into its circulation. This seems more consonant with the usual economy of nature than the theory that this increased demand for blood is to be met by the action of the uterine forces, an agency established for an entirely different purpose and so variable and unreliable in accomplishing this *ex-officio* duty, that the child may be overwhelmed by a too forcible and too copious injection of blood into its circulation on the one hand, or, on the other, be obliged to elaborate from its own system, with a certain consumption both of vitality and time, enough blood to meet the increased and instant demand. A simple experiment made by Budin seems conclusive. In a breech presentation, he compressed the cord as far up as possible; on the birth of the child, the vein was distended with blood but instantly emptied with the first inspiration.

As Lusk says: "Thoracic aspiration does, therefore, exist as an operative force." Whatever our view may be as to the mechanism by which this increase of blood reaches the child, we must accept the facts that it will reach the child in some way if we permit it, that it can do the child no harm, and that clinical observation shows that children do better when the cord is ligated late after respiration is established and better still after pulsations have ceased. Lusk sums up the matter as follows:

1. "The cord should not be tied until the child has breathed vigorously a few times. When there is no occasion for haste arising out of the condition of the mother, it is safer to wait until the pulsations of the cord have ceased altogether.

2. "Late ligation is not dangerous to the child. From the excess of blood contained in the fetal portion of the placenta, the child receives into its system only the amount requisite to supply the needs created by the opening up of the pulmonary circulation.

3. "Until further observations have been made, the practice of employing uterine expression previous to tying the cord is questionable.

4. "In children born pale and anæmic, suffering at birth from syncope, late ligation furnishes an invaluable means of restoring the equilibrium of the foetal circulation."

In conclusion, gentlemen, let me suggest this thought for your consideration: may we not by judicious delay in tying the cord be able to diminish in an appreciable degree the appalling mortality among the new-born?

*THE PREVENTION AND IMMEDIATE TREATMENT OF LACERATED CERVIX.**

By C. C. FREDERICK, M. D.,

Assistant in Obstetrics in Niagara Medical College.

Lacerated cervix uteri, with all the ills that its existence may inflict upon the woman, and the operations for the repair of the same, have been the subject of hundreds of pages, both in the standard and periodical literature of medicine. Much, also, has been written about the repair of lacerated perineum and its prevention. There are the methods recommended by Hohl, Olshausen, Ahlfeld, Goodell, Fasbender, Lusk, and others. But there is comparatively little written concerning the prevention of lacerated cervix. The investigations of the gynæcologists, in recent years, have brought to light the errors of the obstetrician, both of omission and commission.

We have learned that lacerations of the cervix and perineum are frequent—much more so than was ever dreamed of. We have been taught strictly to guard against the laceration of the perineum, and I believe it to be the almost universal practice to-day to look to its prevention, and, in case of its occurrence, to close the rent by suture. I have heard physicians, whose labor cases have run up into the hundreds, avow that they never

* Read before Buffalo Medical Club, Nov. 10, 1886.

had a lacerated perineum. Why? Because they never looked for it. I also have heard the same say that they never had a lacerated cervix. Why? Because they never looked for it. I believe that the majority of the profession, who now give so much attention to the perineum and its repair, seldom or never look for laceration of the cervix, or seek to prevent it. I think I am safe in making the statement that a deep laceration of the cervix is a more dangerous lesion for the puerperal period, and may be far more detrimental to the subsequent health of the woman, than a lacerated perineum possibly can be.

If this statement be true, why should not the accoucheur give as much care to the cervix as to the perineum, or even more?

What are the most common causes of lacerated cervix:

- (1) Early rupture of the membranes.
- (2) Tedious first stage, ordinarily known as rigid os.
- (3) Precipitate labor, with powerful pains.
- (4) Forcible dilatation to hasten labor, as in puerperal eclampsia.
- (5) High forceps operations.
- (6) Manual delivery by version.
- (7) Breech labors, with rapid extraction of the after-coming head.
- (8) Ergot.
- (9) In cases where the anterior lip of the cervix is caught between the head of the child and the pubic bone, and prevented from retracting simultaneously with the posterior lip.

Early rupture of the membranes more commonly occurs in breech or abnormal presentations of the child, and in these laceration is most liable to occur during the delivery of the after-coming head, of which I shall speak further on. Early rupture in vertex presentations, leaving the head to act as the dilating body, tends to excite expulsive efforts before complete dilatation, and before the organic changes have taken place, necessary to dilatation. These too early expulsive pains, therefore, are liable to force the head through the partly-opened

cervix, and all that will not stretch must tear. How may we prevent this. Give chloroform—not to complete anæsthesia, but enough to quiet the reflex irritability—to favor relaxation, and then, between pains, push the vertex up away from the cervical ring, as naturally occurs in the interim of normal first-stage pains. Or, if the premature rupture be very early, and the cervix is but slightly dilated, and pains become hard or continuous, accompanied by a rigid os, administer morphine hypodermically, and give chloroform till the morphia begins to act; or give chloral, per rectum. If these fail to accomplish our purpose, Barnes' bags may be employed. If these are of no service, as they often are not, apply forceps, if the cervix be open enough, and then dilate by intermittent traction, giving a little chloroform to favor relaxation.

I believe that most of us, in our anxiety to save time and get our patients into the second stage of labor, are prone to rupture the membranes sometimes before the cervix is fully dilated. I know it to be the practice of some to do this, if the cervix be soft and thin, long before it is open enough to allow the head to pass without tearing. We must admit, however, that in some cases of slow first-stage, with thick cervix and great pain, the membranes being intact, that no better treatment can be instituted than to rupture the membranes, thus allowing the head to come down into the cervical ring, and help to dilate it. Tedious first-stage is to be treated about as indicated for early rupture of the membranes. In these, anodynes act more uniformly, and the Barnes dilators stretch the cervix better, than when the membranes are ruptured.

Precipitate labor, with powerful pains, the soft parts being dilatable and readily dilating, is not abnormal. But precipitate labor, due to too powerful pains, forcing the child through resisting tissues, is pathological, and the pains must be promptly controlled by chloroform to complete anæsthesia, or, if more enduring effect is desired, morphia, hypodermically administered. Forcible dilatation, at all times, is prone to produce rupture.

In puerperal eclampsia, I believe manual dilatation, or dilatation by Barnes' bags, while holding the patient under morphia or chloroform, may be accomplished sufficiently to prevent deep lacerations. From the reported cases, I am inclined to believe in the efficacy of *veratrum viride*, in large doses, to produce relaxation and rapid dilatation in these cases. As for placenta prævia, and other conditions in which version, manual or high instrumental delivery is necessary, the cervix may be well dilated, if we only exercise patience and work systematically to get it, before proceeding to deliver.

Deep lacerations, extending above the vaginal junction, are most often produced in breech deliveries or podalic version, when the head is extracted by force through an imperfectly dilated os. The remedy, therefore, is full dilatation, to extract the head as gently as possible, and in extreme flexion. And extreme flexion is best secured by firm supra-pubic pressure, and a finger in the child's mouth.

Ergot—what shall I say of it. I am almost ashamed to assume that anyone would use it in doses sufficiently large, during the first stage of labor, to have it classed as one of the causes of lacerated cervix.

When the anterior lip is incarcerated between the descending occiput and the pubic walls, and prevented from retracting simultaneously with the posterior lip, push the head back between pains, and with the ends of two fingers introduced, slip the lip up over the occiput.

Having completed the labor, I believe it the duty of the physician to examine his patient systematically for all lesions of continuity. The perineum can be seen, but the cervix cannot be so readily. Slight lacerations of the cervix are difficult to feel, but deep ones are not. By examining every cervix after labor, one may become quite expert in feeling these tears. First wash out the vagina with a hot sublimated douche, after securing firm uterine contraction and retraction. With the cervix clean, the edges may readily be felt. Lacerations which do not extend near to the vaginal junction generally heal rapidly during

involution, providing that septic infection of contiguous connective tissues does not occur. I have several times proven this in my own cases by examination a month or more after labor.

I have seen two cases of lacerated cervix, in which hemorrhage occurred from the tear, one of them severe, to the point of syncope. The milder of the two occurred in my own practice. Both were primiparæ. With the completion of the third stage and firm contraction and retraction of the uterus, the blood began to gush from the patients, and in both I stopped the flow by passing my hand into the vagina and using my first and second finger as a clamp, at the same time giving the patient as hot a vaginal douche as my hand would bear.

In my own case, after temporarily stopping the hemorrhage, I placed the woman in Sims' position, put in a Sims speculum, and drawing the uterus well down with a tentaculum, and by maintained supra-pubic pressure, I sewed up the laceration with three silver wire sutures. It is surprising to see how near to the vaginal outlet the uterus can be pushed by supra-pubic pressure and how readily the stitches can be passed. The only obstacle is the continuous oozing of blood, and this may be, to a great extent, prevented by first securing firm retraction of the uterus and by giving a hot vaginal douche just before turning the patient on the side.

I removed the stitches in about fifteen days, to find the laceration healed.

The physician in attendance upon the second case did not favor repairing the tear. I am interested to know if it ever healed.

The plan of suturing the torn cervix was first successfully tried, I believe, by Prof. Montrose A. Pallen. The only condition for which it is recommended is the occurrence of hemorrhage. I do not see why a deep laceration down to the vaginal junction, even if there be no serious hemorrhage, should not be sewed.

A PROTEST AGAINST INDISCRIMINATE MEATUS-CUTTING.

BY J. W. S. GOULEY, M. D.,

Surgeon to Bellevue Hospital, New York.

Urethral strictures of the balanic region, whether congenital or due to injury, or to disease, are well known to be of very frequent occurrence, and to be often accompanied with dysury, vesical irritation, "reflex neuroses," and other symptoms; but, of late years, the import of these consequences has been greatly over-estimated, and this has too often led to rash and unwarranted surgical interferences.

Meatus-cutting, or, to give the operation a proper technical name, *porotomy*, has become the fashion, and every adolescent and adult, who is not inflicted with congenital hypospadias, must have his meatus cut, for he is told that the nozzle of his urine-hose should be of greater calibre than the hose itself. He submits to this medical decree, however contrary he knows it to be to general physical and mechanical laws; and inasmuch as nearly every tyro in medicine also accepts this view, he is ready to undertake the mutilation—for what surgical operation is of easier performance than *porotomy*? The consequence is that there are at this moment, throughout the vast country, thousands of men who cannot urinate while standing without wetting their shoes, and who are suffering from other inconveniences due to traumatic balanic hypospadias, and there are already surgeons undertaking operations for the repair of the deformity, as was the case among gynæcologists after the uterus-cutting craze had died out.

The doctrine that the meatus should be the largest part of the urethra is not only unsound but most dangerous, and is leading to much evil to sufferers and physicians. It is, therefore, high time to protest against the indiscriminate performance of *porotomy*, and particularly against those incisions which result in deformity of the urethra.

The congenitally narrow urinary meatus is very often encountered, yet comparatively few patients are ever inconvenienced by this defect. Many elderly men who seek the surgeon's advice on account of prostatic obstruction to urination are surprised when told that the external urethral orifice is abnormally narrow, and say that they never suffered in consequence of this abnormality, which they had not before regarded as such, and that until came the prostatic obstruction, the bladder was always easily and quickly emptied. In a considerable number of such cases the meatus barely admits a catheter of the diameter of three and four millimetres. Of course, here it is not necessary to enlarge the meatus by incision to a degree sufficient to permit the easy passage of suitable catheters or of a fair-sized lithotrite, should the presence of a vesical stone render necessary the use of such an instrument, but to incise through and through the whole balanic region is, to say the least, as unwarranted as unsurgical.

It not unfrequently happens that surgeons are consulted by middle-aged men, with congenital stricture at the meatus, who, having contracted their first urethritis, are for the first time inconvenienced by the narrowness of the urethral orifice. In these cases, the urethritis lingers in the balanic region, and does not resolve, as does generally the first attack, but becomes chronic. Four months thereafter continues the purulent discharge, the glans penis is indurated, the lips of the meatus are red and swollen, and urination is more or less impeded. The surgeon's skill being at last invoked, he forthwith decides to perform the operation of porotomy, which he follows by catheterism of the balanic region once every second day, until cicatrization is complete, and thus obtains a radical cure of the chronic urethritis and of the congenital stricture. But for this attack of urethritis the patient might never have known that he had an abnormally narrow meatus. Many practicers of medicine can tell a similar story.

Strictures of the balanic region are not ordinarily amenable to treatment by dilatation, but require incision, which is the most

prompt and efficient method that can be employed for their eradication; but the incision should be directed and proportioned in accordance with the size and conformation of the glans penis and the condition of the extremity of the urethra. When, for instance, the meatus is normally situated, a sufficiently free, central longitudinal cut along the floor of the urethra answers the purpose of simply enlarging, within proper limits, the contracted urethral extremity; but when there happens to be a slight balanic congenital hypospadias, this kind of incision only increases the deformity and fails to relieve the stricture, which can be successfully treated only by bilateral porotomy, performed in such a way as not to increase the hypospadias.

The object of these extremely free incisions of the urinary meatus seems to be to enable those who practice them to introduce instruments of very large calibre through strictures, real or imaginary, of the deeper parts of the urethra. This indiscriminate over-dilatation of the urethra is another of the many prevalent surgical heresies. What is the ostensible reason for thus overstretching the urethra? It is that the stricture or strictures may not recur. Let those enthusiasts follow their cases, and they will soon find that there are strictures that recur after any and all methods of treatment, while the majority are curable by simple dilatation, and sometimes in spite of their mutilations, and a few of these latter, and only these few, can they reckon among their cures. Now, it is asked, what are the results of frequently introducing sounds of the diameters of eleven, twelve, and thirteen millimetres into the average human urethra? The most careful observation of many cases so treated shows that while the stricture, in some instances, does not recur, the urethra as an organic channel is entirely spoiled; it becomes to a normal urethra what an old, worn-out, hardened, and entirely inelastic India-rubber tube is to one which has just come from the workman's hands. The urethra which is often over-distended by sounds or catheters soon loses a very considerable number of its mucous follicles, becomes dry, leathery, inelastic, patulous, and no longer capable of successfully propelling the urine,

which at length slobbers out of the wide urethral orifice, instead of being forced, as it should be, in a well-formed stream, through a narrow outlet.

It is said that the genital functions also are impaired by this over-distention of the urethral canal.

Is it, therefore, ever justifiable to over-distend the whole urethra, and to maintain the canal in that state of over-distention? Most assuredly it is not rational or proper to do so. Useful instruments have been devised to obviate the evil of over-stretching the whole canal. These instruments are so constructed as to over-distend, when deemed necessary, the strictured part only of the urethra, and save injury to the normal part of the canal, but they are little used. Dilating instruments of this sort should be occasionally employed during the treatment of strictures of the deep urethra, but the main object of moderate dilating catheterism is to restore the urethra, as nearly as possible, to its normal suppleness. Overstretching is here a traumatism which, when frequently repeated, is certain to destroy the suppleness and elasticity of the urethra, and render it almost useless as an organ of the human body.—*Med. Register.*

Medical News.

UTILIZATION OF EARTH'S INTERNAL HEAT.—An attempt is about to be made at St. Augustine, Fla., to sink a twelve-inch artesian well to a depth sufficient to obtain water hot enough to heat buildings, pure enough for domestic purposes and with pressure enough to run heavy machinery. The facts upon which this peculiar experiment are based are that water can be found in Florida by boring two hundred and fifty feet. The artesian wells in that State have considerable pressure, and from a depth of six hundred feet send water of warm temperature to a head of forty-five feet when piped. The question of running heavy machinery by artesian well power is by no means purely experimental—it is done in many locations in France already, and the

experience of the French shows that the deeper the well the greater the pressure and the higher the temperature. At Grenelle, France, a well sunk to the depth of 1,802 feet and flowing daily 500,000 gallons, has a pressure of sixty pounds to the square inch, just double that of the 600-foot well at Jacksonville, and the water from this Grenelle well is so hot that it is used for heating the hospitals in the vicinity.

Am. Meteorological Journal.

WOLKEWITZ has made seventy-one observations of the effects produced by the inhalation of cold air by fever patients. Although no very marked therapeutic results were obtained the experiments show that there is but little if any danger in allowing a fever patient to breathe what he so much craves, cold air. The following facts were learned as the results of the author's study:

1. Inhalations of cold air have but little influence in lowering the temperature of the body. When the temperature is slightly reduced it rises after the inhalation of cold is stopped.

2. The pulse and respiration are reduced in frequency in a marked manner.

3. The general condition of the patient and sleep are improved, but this effect is not permanent.

4. Cold air diminishes the symptoms of bronchial catarrh.

5. Cold air exerts no injurious influence upon the progress of a disease, but on the contrary the writer states that he has found this treatment of undoubted therapeutic value.—*L'Abeille Medicale.*

HEALTH BOARDS IN ITALY.—As it is proposed to re-organize the Health Department of Buffalo it will not be uninteresting to know that Italy has just enacted a law regulating the organization of municipal boards of health, as follows:

SECTION 1. Every municipality (*comune*) shall have a Board of Health whose duty it shall be to give advice concerning all matters pertaining to the public health, to suggest means of preventing disease, and to abate all nuisances which would tend to injure the public health.

SEC. 2. Every Municipal Board of Health shall be composed as follows:

One or two members of the Common Council—*consiglieri comunali.*

One, two or three physicians.

A pharmacist.

A veterinary surgeon.

A civil engineer.

—*Il. Raccoglitori Med.*

THE Buffalo Board of Health has among its district physicians one who claims that the normal temperature of the human body is from 32° to 40° Reamur, that is 104° to 109° Fahrenheit. He claimed that he was not familiar with the Fahrenheit scale. We will state that he practices homœopathy and was not appointed under civil service rules.

A PROPOSED SCHOOL OF HYGIENE.—The University of Michigan is about to establish a school of hygiene to be placed under the direction of Prof. V. C. Vaughn of the State Board of Health. In this school besides the ordinary branches belonging to hygiene and sanitary science will be taught climatology, analysis of air, water, etc.

SEVERAL articles have recently been published in the journals maintaining the equine origin of tetanus. Dr. Dauvin, of the French navy, however, claims that he has seen the disease in Madagascar and the Antilles in places where there neither are nor ever have been horses.

THE death of Prof. Ludwig Bandl, formerly of Vienna, and recently Professor of Gynæcology in the University of Prague, has just been announced. Prof. Bandl attained a world-wide reputation by his study of the phenomena of uterine contraction.

THE homœopathists claim that sixty per cent. of Brunton's "hints" on therapeutics are derived from homœopathy. In Ringer's therapeutics only fifteen or twenty per cent. of his information was derived from the followers of Hahnemann.

UP to December 31, 1886, 1,726 patients had received preventive inoculation for rabies according to Pasteur's method, with fifteen deaths in France and thirty in the other countries.

MORE than eighty-one tons of quinine were used in the United States in 1885.

Selections.

CLASSIFICATION OF INSANITY.

Professor Lefebvre's classification, approved by the Belgian Society :

- | | |
|-------------------------|------------------------|
| 1. Idiocy. | 5. Toxical Alienation. |
| 2. Cretinism. | 6. Mania. |
| 3. Dementia Paralytica. | 7. Melancholia. |
| 4. Dementia. | 8. Folie Circulaire. |

The German plan, quoted by Meynert, as hinted at by Guttstadt, and substantially adopted at the conference of German alienists, at Frankfort-on-the-Main, in 1881 :

1. Ordinary Mental Disorder.
2. Paralytical Mental Disorder.
3. Mental Disease, accompanied by Epilepsy.
4. Imbecility, Idiocy and Cretinism.
5. Alcoholic Mania.
6. Individuals who need Watching.

Westphal's plan, cited by Meynert, and approved by Weisbaden conference of 1873 :

1. Melancholia.
2. Mania.
3. Secondary Mental Disease.
4. Paralytical Mania.
5. Epileptic Mania.
6. Imbecility, Idiocy and Cretinism.
7. Delirium Tremens (Toxie).

MEYNERT'S PLAN OF CLASSIFICATION.

As submitted to the Austria-Hungarian Conference.

Simple Mental Disorder :

- | | |
|--------|-----------------------|
| Acute. | (Melancholia. |
| | Mania. |
| | Insanity. |
| | (Primary Imbecility. |

Chronic.	{ Primary Insanity. Intermittent Mental Disease. Secondary Mental Disease.
Complicated Mental Diseases.	{ Paralytical. Epileptical. Hystero-Epileptic. Mania.
Toxic.	{ Alcoholic. Other Toxic Agents.
Individuals who need watching.	{ Attempts at Suicide. Crimes, etc., etc.

Dr. D Hack Tuke, of England, had submitted a classification of mental diseases, which had been unanimously adopted by the Administrative Council of the British Medico-Psychological Association, which is as follows :

1. Mental Alienation.
 - Congenital or acquired.
 - Idiocy, Imbecility and Cretinism.
 - With Epilepsy—without Epilepsy.
2. Epilepsy.
3. General Paresis.
 - Acute.
 - Chronic.
 - Recurrent or periodic.
4. Mania.
 - A potu —.
 - Puerperal.
 - Senile.
5. Melancholia.
 - Acute.
 - Chronic.
 - Recurrent.
 - Puerperal.
 - Senile.
6. Dementia.
 - Primary.
 - Secondary.
 - Senile.
 - Organic (tumors, hemorrhage).

7. Chronic Delirium (Monomania).

8. Moral Insanity.

Dr. D. Hack Tuke stated that recurrent insanity had not been included, because it required usually one year of observation before it could be certainly diagnosed, and an International classification should be as simple as possible, giving freedom to each country to add supplementary divisions if desired.—*Alienist and Neur.*

THE ROLE OF ELECTRICITY IN TABES.

One of our esteemed collaborators sends us the following :

“Ziemssen, in his latest edition of his book on electricity in medicine, has, after an experience of thirty years, become a pessimist, contrary to the therapeutic optimism of the specialists. After this the high expectations from the healing powers of electricity will have to be toned down somewhat. This news will hardly affect the remunerative enthusiasm of some electricians, who will, as heretofore, cure tabes and other scleroses by drawing sparks two or more inches long from the astonished and credulous victims.”

We may say, in reference to the above, that neither tabes nor any other grave affection of the central nervous system should be combated by electricity alone. It is not the machine or battery, but the medical judgment that directs the conjoint use of electricity and other remedial agencies, that may conquer these maladies; and the medical man who credits the machine alone with the cure, wrongs alike his profession and his patient.

But there remains no doubt in our mind, after long experience and adequate confirmation in the comparative treatment of certain nervous affections with medicine alone, and with conjoint medication and judicious electrization, that results were greatly in favor of the combined plan, especially in epilepsy, paralysis, neuralgia, and sclerosis in all of its forms. The appropriating power for the medicines administered is not only improved by judiciously-selected and prudently-administered electrizations, but favorable molecular changes have been undoubtedly established, from which absolute cures have followed in many of our cases where only such medicines had been used as had previously failed when given without the assistance of conjoint electrization. We have a record of results in our own experience in epilepsy, hemiplegia, and in one or two cases of para-

plegia and tabes, sufficiently satisfactory to refute the skepticism of Ziemssen. Electricity, however, is not everything, and it is not the sparks of the static machine (with which we have had comparatively little experience) that does the most good. In fact, two-inch sparks and the shocking effect is rather harmful in tabes than beneficial.

The roller, up and down the spine, especially in the dorso-lumbar area in tabes dorsalis, and to the legs, and the descending constant galvanic current to the head, in cerebral sclerosis, are decidedly beneficial. It is too late in the day of medical progress to ignore them, and it is extremely inconsistent to countenance manual or machinery massage to the extremities in tabes while discountenancing the molecular excitation of the static roller.

ANTIFEBRINE OR ACETANILIDE.

Antifebrine, the latest antipyretic, is prepared by heating aniline with glacial acetic acid in a special receptacle. It is a white, neutral, crystalline body, without odor, with a slightly pungent taste, freely soluble in alcohol and hot water, but almost insoluble in cold water. It does not combine with acids or bases, and is non-poisonous, even in comparatively large doses. As an antipyretic it is four times more powerful than antipyrin.

In a series of observations made by Drs. A. Cahn and P. Hepp, assistants in Prof. Kussmaul's clinic, at Strasburg, it was found to possess remarkable power in controlling abnormally high temperatures, in cases of typhoid fever, erysipelas, acute rheumatism, pyæmia, pneumonia, etc. With the lowering of the temperature there was also a decrease in the frequency of the pulse, but an increase in volume. It never caused any nausea, and the diaphoresis was always moderate in quantity.

These observers administered it in doses of four to fifteen grains, in brandy, wine, or wafers. They never exceeded a dose of thirty grains. The action of the medicine is manifest within an hour. They highly recommend it on account of its energetic action in small doses, also for its harmless effects on the stomach and for its cheapness. M. Lepine finds that it is a very valuable "nervine" in doses of seven and a-half grains, producing marked beneficial effects on the lightning pains in locomotor ataxia.

The Paris correspondent of the *Lancet* reports a recent discussion by the Societe de Therapeutique of antifebrine as a "nervine." Dujardin-Beaumetz claimed that it acted as a moderator of the spinal excitability, particularly of the upper part of the cord. No appreciable physiological effects were observed from daily administrations of fifteen to thirty grains. It cannot be detected in the urine. In three cases of locomotor ataxia the lightning pains were greatly relieved. In one case of epilepsy, the attacks had ceased entirely since its administration. M. Constantin Paul had tried antifebrine in doses of four to eight grains daily, as recommended by Lepine, but without result.—*Southwestern Medical Gazette*.

HOMŒOPATHY, AS REGARDED BY ONE OF ITS LEADERS.

Jousset, of Paris, is unquestionably one of the lights of homœopathy on the Continent of Europe. His recently published *Lecons de Clinique Medicale* is in some respects a model of its kind. According to this authority, the homœopath of to-day no longer affirms the mysterious potency of the globule, or the all-sufficiency of the doctrine of similars, but claims to be, in the true sense of the word, eclectic.

"Hahnemann and his pupils," he says, "pretended that homœopathy was the *whole* of therapeutics. This is a complete misconception of the case—homœopathy is but a *part* of therapeutics; this is a ruth which has cost us many execrations from men in our own ranks, but is now held to be indisputable.

"The fact is, homœopathy cannot take the place of *palliative* medication, nor of *surgical* medication; nor of *antidotal* medication in cases of poisoning; nor of *parasiticide* medication, wherever clearly demanded; nor of medication by *mineral waters*, which often cures where other modes of treatment fail; nor of *hydro-therapeutic* medication; nor of medication by electricity; nor even altogether of *empirical* medication. Homœopathy is not everything, and liberal medicine must include all collateral modes of treatment."

Jousset repudiates the allegation that homœopathy is a *sect*, and affirms that it is simply a branch of medicine which has to do with the therapeutics of certain internal disorders, and not even all of these are amenable to treatment by the law of similars (for example, helminthic diseases). The same writer, who seems to have some following

in France, and may be said to represent the advanced thought of his school, gives some pretty hard blows at the advocates of infinitesimal doses, who, he intimates, have brought discredit upon homœopathy, and affirms that "the school of high dilutionists is losing ground every day, and in France, as in Germany and America, the general tendency is to employ the low dilutions."—*Boston Medical and Surgical Journal*.

PERIPHERAL NEURITIS IN TUBERCULOSIS.

The following are the conclusions of a lengthy article by MM. Pitres and Vaillard in the *Rev. de Médecine*, March 10, 1886:

1. It is not infrequent to find, in the course of tuberculosis, as in that of other infectious diseases, the peripheral nerves becoming the seat of parenchymatous alterations, presenting the histological characters of the so-called degenerative neuritis.

2. These neurites develop locally, and are not at all dependent on pre-existing cerebral or spinal disease. They are met with in subjects whose nervous centres (brain, cord, meninges,) and the spinal root are in a perfectly healthy condition.

3. They may affect indifferently the sensory, motor, and the mixed nerves. They may also involve the cranial nerves (optic and oculomotor), or the pneumogastric and phrenic nerves, etc.

4. Their very complex and variable symptomatology is as yet imperfectly known. Nevertheless, by comparison of the facts published up to date, we may divide them into three groups.

The first of these groups comprises those cases in which the symptoms of neuritis revealed at the autopsy had passed unnoticed amongst the grave disorders dependant upon the evolutions of the tubercular disorder (latent neurites).

In the second group fall the cases in which localized or diffuse muscular atrophies have constituted the predominant symptoms (myotrophic neuritis).

In the third group, finally, those cases figure in which the neuritis has during life produced more or less serious sensory disorders, hyperæsthesias, anæsthesias, neuralgias, etc. (painful or anæsthetic neuritis).

5. The frequency of peripheral neuritis amongst tuberculous subjects, the variability of its distribution, and, in consequence, of its symptomatology, explains the clinical polymorphism of the majority of the nervous disorders which arise in the progress of tubercular disease.—*Neurological Review*.

UNTRUSTWORTHY DRUGGISTS.

It is a well-known fact that there are druggists in every large city who are not to be trusted with the filling of a prescription that calls for any expensive drug. They come and go, so that at last physicians are compelled to designate certain of the drug fraternity as trustworthy, and insist upon their patients going to these alone for their medical supplies. If they fail to do this, their work is thrown away and their reputations go with the failure of their remedies in critical cases.

A few cases from actual observation and experience will illustrate this better than a volume of argument.

1. Thirty grains of quinine, in three doses, to be taken at hourly intervals, were prescribed for a young man suffering from ordinary intermittent fever. The doses were taken as directed, but no signs of cinchonism were induced, and the disease progressed without change. The same doses, in "Warner's sugar-coated pills," were ordered with the effect of inducing well-marked cinchonism with cure of the disease.

2. In a case of profuse menorrhagia, one ounce of fluid extract of ergot was ordered, with directions to take a fluid drachm every hour until the hemorrhage ceased. The entire amount was taken without result. An ounce of "Squibb's fluid extract of ergot" was ordered—same directions—and the flooding ceased after the second dose.

3. Four ounces of a mixture of bromide of potassium and chloral, each an ounce, with tincture of hyoscyamus and fluid extract of cannabis indica, in appropriate doses, were ordered, with directions to take one teaspoonful every hour until sleep should be induced. An ugly, muddy mixture was received, which produced nausea and headache, but no sleep.

A similar prescription, instead of the above extemporaneous officinal combination, was ordered, only "Battle's BROMIDIA" was designated, which induced refreshing sleep after a few doses of from twenty to thirty drops had been taken. [*Extract from an article in the Dec. Med. Brief, by William B. Hazard, Prof. Principles and Practice of Medicine, Col. Phys. and Surgs., St. Louis.*]

TREATMENT OF BRIGHT'S DISEASE.

Semmola, of Naples, in an article in the *Wiener Medizinische Blätter*, No. 49, advises strongly against allowing a patient who is

suffering from nephritis to come in contact with cold in any avoidable way. Such patients are extremely sensitive to cold, and cold baths are followed by great shock and depression. Violent massage and exercise of the muscles, the author strongly deprecates as followed by great shock and weakness.

He would advise the patient to live in a dry and equable climate; to strictly avoid all exposure, or going about in severe winter weather; to practice mild gymnastics in a comfortable room, rather than venture into a temperature below 18° or 20° C. The author emphasizes the remarkable sensibility of the skin of the sufferer with Bright's disease to all variations of temperature. Sodium iodide and chloride is advised in doses as large as tolerated. When, after two or three weeks, albumen has not entirely disappeared and dropsy has been relieved, phosphates of sodium or calcium are given in quantities as large as 40 grains or a drachm daily. The efficacy of these drugs the author believes consists in their power to promote the assimilation of albumen.

The methodical inhalation of oxygen, which Semmola has urged since 1867, has been repeatedly proved to be of the highest benefit. Albumen soon disappears after its use, and although casts may remain in the urine, the patient's general condition is so much improved that the author thinks we have here an argument for the dyscrasic or hæmatogenic origin of Bright's disease.

All astringents are considered not only valueless but also injurious. Especially is the action of ferrum sesquichloratum and plumbum acetikum thought injurious, because of their astringent influence on the capillaries of the skin.

THE LATEST TREATMENT OF PHTHISIS.

The very latest treatment of phthisis is by large doses of tannin. Scarcely had we begun to grasp the details of the medicated gaseous enemata process, as practiced in the French hospitals, before Drs. Arthaud and Raymond announce something simpler and better. We learn from the Paris letter to the *British Medical Journal*, that these gentlemen began by experimenting on rabbits, in order to find some substance which would render them non-susceptible to inoculations of tuberculous matter. They obtained some very remarkable results from tannin.

“Six rabbits were treated for a month with doses of tannin, varying from seven and a half to fifteen grains: after two successive inoculations, one with lung-tissue from a patient who had died of acute tuberculosis, the other with miliary tubercle from a hospital patient—no trace of infection was observed, while the three other rabbits, to which tannin had not been given, succumbed in consequence of inoculations with the same material. These experiments suggested a mode of treatment which has been adopted with excellent results in over fifty cases. Tannin was given in doses of from thirty to sixty grains a day, and the improvement was visible at the end of a fortnight, the patients had increased in weight, and no relapse occurred. In cases of acute tuberculosis, both in children and adults, it sometimes happens that the symptoms appear less favorable: but at the end of a week or a fortnight, the patient's condition improves, even when fatal results have been feared. From these experiments the following conclusions may be drawn: (1) The tannin is preferable to sulphide of carbon or iodoform in the treatment of tuberculosis: (2) that animals submitted to this treatment for a month offer great resistance to the action of tubercular virus.”—*Southwestern Medical Gazette*.

RARE LESIONS PRODUCED BY BROMIDE OF POTASSIUM.

At a recent meeting of the New York Pathological Society, (*N. Y. Med. Journ.*, November 13, 1886,) Dr. R. W. Amidon presented an epileptic young woman, who had been under his care four years, taking moderate doses of bromide of potassium—perhaps never more than four or five drachms a day. A little over a year ago she discontinued it, but recently he learned that she had been taking during the past eighteen months a mixture of the bromides amounting to six drachms a day. She then returned to him, and he found the ordinary acne on the face, which, although usually confined to the face and neck, perhaps occasionally reaching to the chest and shoulders, had in this patient, as in two others whom he had seen, invaded the legs, and assumed almost the pustular form. The lesion began in the ordinary way, but became indurated with rather a large base, and ran a chronic course, breaking down and forming what appeared to be a small ulcer. Vesicles, with contents which tended to become cloudy and purulent, formed in rings about the acne spot. After a time the

centre of the spot took on a reparative process, and entirely healed, while the pathological changes at the periphery spread, and the vesicles became purulent, dried up, and formed a brownish scab. A section of one of these spots showed that there had not been a true ulcer, but that the skin had simply been denuded of the cuticle, leaving the papillæ intact. He had in no case seen the true skin indurated. The disease did not seem to depend particularly upon the amount of the bromides given. The only treatment which he had seen do good was the thorough application of the actual cautery.

A VERY interesting contribution to our knowledge of peripheral neuritis in tabetic patients is found in the *Revue de Medecine*, No. 7, July 10, 1886, by Pitres and Vaillard. The conclusions of their memoir may be summed up as follows:

1. The peripheral nerves of tabetic patients are often the seat of neuritis.

2. The neuritis of tabetic patients does not differ in any essential respect from other forms of the non-traumatic affection.

3. Their topographical distribution in the body is variable, for the neuritis may attack the sensitive and mixed nerves and the visceral.

4. In the majority of cases, but not always, the disease begins at the outer extremity of the nerve.

5. Their extent and gravity have no constant relation in respect to age, or the extension or depth of the medullary regions of the locomotor ataxia.

6. It is probable they do not play any part in the production of the specific symptoms of tabes; such as, the lightning-like pain, incoördination of movements, abolition of patellar reflex, disorders of the muscular sense, etc. These latter symptoms depend rather upon the condition of the posterior columns of the cord.

7. Certain inconstant symptoms, however, which are added to or complicate the symptomatology of tabes, appear to depend upon the peripheral neuritis; such, for example, as anæsthetic spots in the skin, localized trophic disease of the skin and its dependencies, certain localized motor paralyses, accompanied or not by muscular atrophy, isolated joint affections, visceral crises, etc.—*Neurological Review*.

EXPERIMENTAL DIABETES.—The usual experiments are successful only when the liver contains glycogen. Mering, of Strasburg, finds that a dose of one grain of phloridzin ($C^{21}H^{24}O^{11}$, an extract from root-bark of fruit trees) to every thousand grains of body weight, in the case of dogs, produced ten per cent. of grape sugar in the urine, irrespective of the liver's containing glycogen. By increasing the dose the sugar reached fifteen per cent., and the animals were well and sprightly. The quantity of sugar in the urine depended on the amount of phloridzin, but this dependence ceased to hold good if the animal had food—flesh or bread. Curare in hungered animals caused no glycosuria; but a dog, after fasting three weeks, after a dose of phloridzin, had eight per cent. of sugar in its urine.

Mering rendered the liver functionless by phosphorus poisoning, and sugar persisted in the urine. In geese, after removal of the liver, severe glycosuria persisted. The liver of a dog suffering severe phloridzin glycosuria gave but six grains of glycogen—very little.

The amount of sugar in the blood more than once showed a diminution, although there was ten to fifteen per cent. of sugar in the urine. This differs remarkably from what has been found in other cases of experimental diabetes. For true diabetes, the records vary.

Mering believes that the cause of diabetes is probably an alteration in the *kidneys*. Or one can imagine an alteration in the blood itself, so that the sugar is not retained as in health, but passes into the urine. —*Medical Chronicle*, Manchester, Eng.

THE VARIOUS SUBSTANCES RESEMBLING MEMBRANES FOUND IN THE THROATS OF CHILDREN.—According to the famous pædiatrician, J. Simon, these products are as follows:

1. Diphtheritic products embedded in the mucous membrane and firmly attached to it by fibrous prolongations. The fibrous nature of this membrane may be demonstrated microscopically. These exudations are usually accompanied by enlargement of the submaxillary glands and slight rise of temperature.

2. Pultaceous products, that is, epithelial substances with mucous.

3. Herpetic products, often found in connection with tonsillitis. These are all soluble in water.

4. Products resulting from cauterization.

5. Milk deposits composed principally of casein and often found in the throats of nursing infants.

6. *Mucuet* or thrush, and the diphtheroid angina of children having exhausting diseases, such as typhoid fever, severe bronchitis, scarlatina. These deposits are often thrown out within twenty-four hours, as are those of true diphtheria. The subsequent course of these diseases alone enable us to make an accurate differential diagnosis. When called to see a case in which the diagnosis of diphtheria is possible, I say that I consider the case non-malignant, but as we cannot be certain of this, the child should be treated as though he had a true diphtheria.—*El Siglo Medico*.

SPERMATORRHŒA IN GONORRHŒA.—In studying the causation of spermatorrhœa, Fürbringer finds that a previous attack of gonorrhœa is the cause of spermatorrhœa in the majority of cases, as compared with the neurasthenic spermatorrhœa. He has been able to determine this fact for himself by a careful examination, during four and a-half years past, of the urine of patients under treatment for chronic gonorrhœa. In making his examinations, he has been careful to exclude cases in which the presence of a small quantity of semen could be attributed to natural coitus, or nocturnal emissions, or the practice of onanism, in the correct sense of the word, or of masturbation, as well as those cases in which straining at stool, or in any other way, has forced a little semen from the vesicles. Fürbringer has found in one hundred and forty cases of chronic gonorrhœa no less than twenty-five patients with what he calls "latent spermatorrhœa," that is, with the presence of a few spermatozoa of gonorrhœal in the urine, totally unsuspected in themselves. Fürbringer's investigations seem to indicate that in the spermatorrhœa origin, the discharge is not mixed with the secretion of the prostate, is devoid of the characteristic odor of the seminal fluid and contains no Böttcher's crystals, while all these are present in neurasthenic spermatorrhœa.—*Medical News*.

THE EFFECT OF LARGE DOSES OF COCAINE UPON THE CENTRAL NERVOUS SYSTEM.—Dr. Bey, of Cairo, has had the following experience in the use of cocaine as a means of checking the opium-habit. He began with doses of five centigrammes, three or four

times daily, but the patient's sensations of relief and stimulation were so pleasurable that the patient soon established a cocaine habit. He sought relief for each slight ailment in an injection of cocaine, the dose increasing until half a gramme, and even $\frac{3}{4}$ of a gramme, was taken secretly daily. This produced loss of appetite, great irritability, ringing in the ears, and, from time to time, dyspnoea and hallucinations of sight and hearing. These unpleasant symptoms the patient had learned to relieve by injections of morphine, until he became skilled in the antagonistic use of the drugs. An attack of herpes and its neuralgic pains drove him to double his doses of cocaine until for two or three days he took a gramme, and at times one and a-half grammes daily. Then followed a condition very like delirium tremens—tremors, lack of muscular tonicity, incontinence of urine, alterations in the nails of the fingers and toes, the greatest agitation, severe hallucinations of sight, hearing, and smell, injected conjunctivæ, a staring expression. He fired a pistol at imaginary objects, attacked his servant, and was finally placed under hospital restraint. Here he soon recovered under morphine injections of five centigrammes, three times daily.

LACTOSURIA.—Dr. A. B. Leone defines lactosuria as the elimination by the kidneys, of milk sugar formed in the breasts. The milk not being used to nourish the infant, becomes re-absorbed in the blood vessels and lymphatics then entering the circulation whence it is excreted by the kidneys. Lactosuria is not observed before the seventh month of pregnancy, and is not constant in the last two months, but depends upon the development of the breasts.

In women who do not nurse their children, lactosuria is quite constant in the first five or six days of the puerperium, but is sometimes absent the first day. In the second day it is constant, but the lactose may be in small quantities. It increases on the third and fourth days, and then declines.

In nursing women, the phenomenon is observed during the first days after labor, the quantity of lactose varying in quantities from one to three grammes per litre. If women stop nursing for any cause, lactosuria is promptly developed, but disappears within a few days.

Lactosuria during the first days of the puerperium, and of women who do not nurse, disappears during fever.—*Rivista Chir. e Terap.*

COMPARATIVE VALUE OF ANTISEPTICS.—Drs. C. Bergonzini and R. Frignani, of Modena, have recently published a work on the subject, giving the results of their investigations which have extended over a period of some years. The culture medium was, in the majority of instances, blood, and preferably human blood. We will refer briefly to some of their most noteworthy conclusions. Some substances which have attained a high reputation as surgical antiseptics, they have found to be worthless or very feeble in their power—for example, iodoform and bismuth. For sterilizing instruments, strong solutions of phenic acid are the best.

They have two comparative scales, showing the relative antithermic and antiseptic powers of some antipyretics, which we consider worthy of note, as they show that there is no necessary relation between antiseptic and antithermic properties of a drug.

As Antithermics.

Antipyrine,
Kairine,
Resorcin,
Acid Salicylic,
Sodii Salicylat,
Quinine,
Piperine,

As Antiseptics.

Acid Salicylic,
Piperine,
Resorcin,
Quinine,
Kairine,
Antipyrine,
Sodii Salicylat.

EPISPADIAS IN THE FEMALE.—R. Dohon, in the *Zeitschrift f. Geb. and Gyn.*, xii., 1, reports this rare case: Patient æt 18. Has dribbling of urine. Labia majora not prominent. Labia minora more prominent, and divided above, as also the clitoris. This organ consisted of two symmetrical halves, and at the base of these halves, at the site of the normal junction above, was the urethra, wide enough to admit the little finger. The operation for relief consisted in dissecting off a three-cornered flap, the apex of which lay at the mons veneris, and the other two angles out beyond the two halves of the clitoris. The clitoris prepuce was freshened on each side, and sutured together. Good union followed, and the meatus lay in its normal position under the clitoris. The girl improved slowly, and began to retain her urine, the tonicity of the vesical sphincter being stimulated by the use of electricity.

THE TREATMENT OF CERTAIN FORMS OF VOMITING.

There are few disorders which cause more discomfort and distress than those accompanied with incessant attacks of vomiting: there are few disorders which try more the patience and the skill of the practitioner. Dr. F. P. Atkinson gives us in the *Practitioner* (for November, 1886,) a number of points which may prove useful in relieving certain forms of obstinate vomiting.

In cases of *simple bilious vomiting* he states that a mixture containing fifteen minims of solution of potassium and four of laudanum administered every four hours acts like a charm, and he asserts that in no uncomplicated cases will there be any vomiting after two or three doses. For the *vomiting of pregnancy* he suggested a little milk and tea, with a small piece of bread and butter or biscuit, immediately before rising in the morning, and a biscuit or two at various intervals throughout the day, whenever there is a feeling of emptiness. In vomiting from *ulceration of the stomach* the great object is to give the stomach as much rest as possible. This may be accomplished by giving very small quantities of peptonized milk or koumiss at short intervals; thus a teaspoonful of the above may be mixed with cold water, and given every four hours. Dr. Atkinson further recommends that the body should be oiled night and morning to help nutrition, and covered with warm clothing to prevent cold. Later on, when the pain has almost subsided, various simple foods may be allowed. When the vomiting is very urgent, of course the stomach should be given entire rest, and peptonized meat enemata should be administered.

In the vomiting which occurs in *infants brought up by hand*, the most frequent cause is found in the inability to digest the casein of the milk. In such cases it is advisable to use one of the many peptonizing powders now on the market, or the following may be given: Two tablespoonfuls of whey, two tablespoonfuls of water, and one tablespoonful of cream; if there be some diarrhoea, a little meat juice may be given three or four times daily, while the body should be oiled night and morning.

ARTIFICIAL ALIMENTATION.—Dr. G. D. Hays concludes an article in the *N. Y. Medical Journal*, January 27, 1887, on this subject as follows:

1. Many pathological processes arise from an improper dietary, and many others may be controlled by a proper dietary. There is a celebrated proposition by M. Broussais: "He who does not know how to manage the stomach will never know how to treat diseases."

2. Malassimilation is a cause of disease. Peptones in the general circulation being poisons, when from any cause metabolism is interrupted, the system is prone to take on pathological conditions.

3. In pyrexia: *a.* The digestive juices, being less in quantity and impaired in quality, should be re-enforced by the artificial digestive ferments.

b. The stomach is feeble in a muscular sense, and incapable of dealing with large quantities, hence, concentrated or predigested foods should be furnished it.

c. The process is one of tissue destruction (histolytic), hence, we must furnish the materials for repair (histolysis). How and when to furnish these is still a disputed question.

d. Feeding is not the cause of pyrexia, nor starvation its cure. Though the former augments it and the latter decreases it, we gain most by keeping up nutrition.

e. The excess of urea excreted is not proof of nitrogenous waste in the blood.

THE ANTISEPTIC TREATMENT OF SUMMER DIARRHŒA.—In an article on this subject (*N. Y. Med. Journal*, January 27, 1887), Dr. L. Emmett Holt sums up the following conclusions:

1. Summer diarrhœa is not to be regarded as a disease depending upon a single morbid agent.

2. The remote causes are many, and include heat, mode of feeding, surroundings, dentition, and many other factors.

3. The immediate cause is the putrefactive changes which take place in the stomach and bowels in food not digested, which changes are often begun outside the body.

4. These products may act as systemic poisons, or the particles may cause local irritation and inflammation of the intestine.

5. The diarrhœal discharges, *at the outset* at least, are to be looked upon as salutary.

6. The routine use of opium and astringents in these cases is not only useless, but, in the beginning particularly, they may do positive

harm, since, by checking peristalsis, opium stops elimination and increases decomposition.

7. I do not deny or undervalue opium in many other forms of diarrhœa than the one under discussion.

8. Evacuants are to be considered an essential part of the antiseptic treatment.

9. Experience thus far leads me to regard naphthalin and the salts of salicylic acid as the most valuable antiseptics for the intestinal tract.

MALTINE IN PHTHISIS.

By WILLIAM PORTER, A. M., M. D., St. Louis.

After full trial of the different oils and extract of malt preparations in both hospital and private practice, I find MALTINE applicable to the greatest number of patients, and superior to any remedy of its class. Theoretically, we would expect this preparation, which has become practically officinal, to be of great value in chronic conditions of waste and malnutrition, especially as exemplified in phthisis. Being rich in *diastase, albuminoids and phosphates*, according to careful analysis, it aids in digesting farinaceous food, while in itself it is a brain, nerve and muscle producer.

In practice this hypothesis is sustained. A female patient at St. Luke's Hospital, aged thirty-five, with phthisis, signs of deposit in left upper lobe, losing flesh for six months, poor appetite and night-sweats, began taking MALTINE March 13, 1880. She now weighs 121 lbs., eats well, no night-sweats, and the evidences of local disease are much less marked.

Another case of phthisis: A gentleman from Alabama, with all the physical signs of phthisis, rapidly losing health and strength. His was the remarkable gain of ten pounds *from six weeks' use of MALTINE*.

These instances are sufficient for illustration, and are *duplicated many times in the experience of physicians everywhere*. There is a universal reluctance always to testify to results from medical preparations, but when, as in this case, the composition is fully known, and the profession invited to investigate the manner of preparing it, there is no reason why the remedy should not receive general approbation, provided it be worthy.—*Quarterly Epitome*.

THE ALCOHOLIZATION OF WINES.—In the session of the Academy of Medicine, of France, held November 30, 1886, the Academy discussed at length the question of the reinforcing of wines with alcohol, and, after a long controversy, arrived at the following conclusions :

1. The addition of pure alcohol to wines in quantities not exceeding two degrees may be allowed ; but amount greater than this cannot be tolerated.

2. Addition of alcohol is dangerous, not only because of the quantity and quality of poor alcohol used, but because it destroys confidence and perpetuates fraud.

3. Alcohols commonly called good increase considerably the injurious effects of brandy and liqueurs ; alcohol added to these liquids should be absolutely pure.

4. The Academy called the attention of the authorities to the necessity of reducing the number of smaller warehouses for keeping and altering wines, and of putting in active operation laws against drunkenness.—*Bulletin de l'Académie de Médecine*, No. 48.

STUDY OF ATMOSPHERIC BACTERIA.—N. Kelguish has made a study of the bacteria of the air, his investigations extending over a period from September, 1885, to August, 1886, inclusive. During this time 186 examinations of the air were made, and 846 cultivations obtained, from which it was determined that the air of St. Petersburg contained on an average 4,500 microbes per cubic meter. In winter the external air is purest, containing 2,000 microbes per cubic metre, while that of hospitals contained most germs, 5,350 per cubic metre. The observations of Kelguish confirm those of Miguel, who claims that the external air is purest in winter, while the opposite is true of the air of closed spaces. He also found that the air of medical wards of hospitals is purer than that of surgical wards, being in the ratio of 2,606 germs per cubic metre in the former to 3,488 in the latter. He also showed the great superiority of heated chimneys as a means of ventilation, over the ordinary air-shafts, as the former destroy germs while the latter only remove them.—*Revist. de Cienias Med.*

EUPHORBIA DRUMONDII.—A new alkaloid has been discovered in one of the euphorbiaceæ, *euphorbia Drumondii*, of Australian origin. The alkaloid has been called *drumina* and possesses the anæsthet

erties of cocaine. Cattle and sheep that eat the plant die after being affected with a paralysis of the extremities. A solution of drumina applied to the tongue, nasal membrane, or upon the hands, will constantly produce anæsthesia so complete that the tongue, for example, cannot detect the bitter taste of quinine. Injected subcutaneously in cases of sciatica and neuralgia, it will produce instantaneous relief.

Dr. Ried, the discoverer, believes this alkaloid to be a pure anæsthetic, acting without a preceding stage of excitement, and claims that it can be administered without danger.—*Il Morgagni*.

TOBACCO ASTHMA.—Russo Gilberti reported to the *Società d'Igiene* numerous cases of functional disorders caused by tobacco, among which is the following: A young man 24 years of age, well developed and nourished, but of an erethistic temperament and a hereditary tendency to convulsions, was seized with severe attacks of asthma which he attributed to smoking. His physician advised him to discontinue the use of tobacco and avoid rooms where there was tobacco smoke, and for more than a year he has not had the slightest attack of asthma.

This case confirms the opinion of Peter, who considers tobacco a true poison to the pneumogastric, and may even in small doses injure those who are especially susceptible to its influence.—*Lo Sperimentale*.

POTASSIUM PERMANGANATE IN AMENORRHOEA.—Dr. Marshall, of San Francisco, after employing this drug in fifty cases of amenorrhœa, has arrived at the following conclusions:

1. The permanganate acts satisfactorily in about seventy per cent. of "selected cases."
2. It should be administered one or two hours *after* eating.

The disagreeable action on the stomach may be relieved by combining it with the following:

Oxalate of cerium,	-	-	-	1 grain.
Hydrochlorate of cocaine,	-	-	-	$\frac{1}{8}$ grain.
Subnitrate of bismuth,	-	-	-	5 grains.
Powdered ipecac,	-	-	-	$\frac{1}{16}$ grain.

The writer also states that this drug has a marked tonic effect and generally causes mental exhilaration.—*Canadian Practitioner*.

THE TREATMENT OF BURNS.—Altschul (*Monatsch. f. prakt. Dermat.*) reviews the treatment of burns, and gives the results of his own experience. Iodoform he regards as the application *par excellence* for burns of the second and third degrees; he prefers an iodoform gelatin of the strength of ten per cent., or, better still, an iodoform paste, of which the following is the formula :

R	White wax,	-	-	-	-	3 ss
	Olive oil,	-	-	-	-	3 i
	Solution of subacetate of lead,	-	-	-	-	3 vi
	Iodoform,	-	-	-	-	3 ij. to iv
— <i>American Med. Digest.</i>						

BILLROTH writes the following antiseptics :

1. Iodoform is the safest and most effective of all manageable antiseptics.
2. Moss, wood, turf, mould and oakum are useful when there are discharges from the wound.
3. Corrosive sublimate in dilute solution is practically inert as an antiseptic to wounds, and renders the patient and surgeon alike liable to mercurial poisoning.
4. Carbolic acid, which is known to be dangerous in strong solutions, is, in very weak ones, as good for wound irrigation as clean water, but probably no better.—*Canada Lancet.*

Editorial.

BUFFALO LAW SCHOOL.

LAW DEPARTMENT OF NIAGARA UNIVERSITY.

We are called upon again to record another addition to the educational advantages of Buffalo, and to congratulate the Niagara University on its new acquisition.

When this enterprising and progressive institution erected a medical school in Buffalo, we were informed by one in authority and in whom we all have confidence, that other departments

would also be established here, and additions made to an already powerful institution. To-day that promise is made good.

As is well known, this institution has a collegiate department where young men are instructed in the arts and sciences, and where, after a strict examination, the student can obtain any degree conferred by such colleges. In addition to these, it has a theological department. They are conducted at Suspension Bridge, where are located commodious buildings. The medical department, founded four years ago in Buffalo, has been in every way a success. The faculty has kept its promises to the profession and the public to maintain a school on a higher plane. It has constantly insisted on preliminary requirements and a thorough medical education before graduation. By such a course, and by the effort of the members of the faculty to merit the honor given them, they have won the respect and confidence of the medical fraternity. Thus it is that success in one direction is apt to be followed by achievements in other fields. The legal profession has united and joined hands in furthering these ideas of higher education. It is conceded that a law school is quite necessary to the student, and yet the majority of the lawyers of our city have never attended a school to learn their chosen profession. By the organization of this department, an opportunity will be afforded many to partake of the advantages of such an institution who are not able or willing to take a course away from home. The gentlemen who have undertaken this task are men of ability and energy. They will, as they say, endeavor to maintain a school second to none in this country. They have been unusually fortunate in the selection of a man who can devote a great deal of time to the work of the school, one who not only has the time but the education, experience and ability to perform this work. As to his co-laborers, quite as much can be said; they are eminently qualified in the various departments they will undertake; of the assistants, which have thus far been selected, it can be truly said that they are young men of excellent education and attainments, and doubtless by this early experience will be, in later life, able to take a superior place.

The Faculty of the Medical Department has assigned rooms to the new school for the present. Additions to the faculty, and the various topics, will be announced in the near future. The legal profession has received the announcement of the school with great enthusiasm. The daily press have echoed the same sentiments. We append these, as follows :

[From the Buffalo Commercial.]

The organization of a law school in Buffalo, under the charter of the Niagara University, is an event of decided local interest. Such an extension of local educational facilities has been discussed often enough, and the time now seems ripe for the execution of the project. The sponsors of the movement are Spencer Clinton, the Hon. James Sheldon, the Hon. George Clinton, Adelbert Moot, Sheldon T. Viele, E. Corning Townsend and Charles P. Norton. The names of these gentlemen are a sufficient guarantee of the character and aims of the proposed school. They are men of talent, energy and experience in the legal profession of Buffalo. With their influence, and with the organization of a competent faculty under their direction, there appears to be no reason why the Buffalo Law School should not succeed. The older and famous law schools are none of them very near to Western New York, and to take a course of study at any of them involves an expense that closes them against many poor and worthy young men. The new Buffalo school will hold out strong inducements to those who desire to study law in a city where board is cheap.

[From the Buffalo Courier.]

Some years ago there was talk of the establishment of a law department in the University of Buffalo. No active steps were taken, however, and the project was allowed to go by default. The charter of the Niagara University provides for a law department, and the question has been under advisement quietly for some time. The matter has now taken practical form, and is about to become a fact. It is to be known as the Buffalo Law School, and is created as a department of the Niagara University. The school will be under the direction of the following able gentlemen, who have initiated the movement, and who stand in the foremost rank of the legal profession: Spencer Clinton, the Hon. James Sheldon, the Hon. George Clinton,

Adelbert Moot, Sheldon T. Viele, E. Corning Townsend and Charles P. Norton.

The step was taken after mature and deliberate reflection and with a view of promoting the interests of professional learning, and advancing the intellectual as well as the material enterprise of Buffalo. That such a movement as this is timely, is evident to all those who realize the large growth to which Buffalo has attained, and the large number of young men in the city and within the extended surrounding territory tributary to it, who need and demand thorough and systematic training for the profession into which they are to enter. That such a school will succeed is guaranteed by the fact that many of the best lawyers have approved and commended its organization, and have expressed the belief that it will have hearty support of the bar generally, and have signified their willingness to aid it in every possible way.

Heretofore, the course has not seemed clear for the organization of the much-desired school, but now, with the inducements and facilities offered by this rapidly-growing and powerful institution of learning, an institution which, in its several departments of arts, sciences, etc., is honoring the educational interests of the Empire State, the way appears to be open, and the opportunity has been improved. The Medical Department of the Niagara University, now in its fourth year, has already distinguished itself as a most worthy institution, and in its efforts to make better physicians, has commanded the respect and received the praise of Buffalo's best citizens. The same commendable efforts which will be put forth by the Law department to advance legal learning and culture, will, without doubt, be appreciated by the people of Buffalo, and they will be proud of such an institution. The Law School will begin in the fall, and for a while will be maintained at the Medical College building, on Ellicott street, where excellent rooms have been tendered for that purpose.

[From the Buffalo Express.]

The long-talked-of Law School is a mere matter of talk no longer. Steps have been taken to establish a Law School in connection with the Niagara University, the medical department of which is situated on Ellicott street, near Broadway. The project has been more or less actively canvassed for a number of years, but nothing came of it until within a few days, when it was intimated by the authorities of

the Niagara University that they would be willing to furnish the necessary accommodations for law lectures, if it was thought desirable to establish a school. Accordingly, a meeting was held on Thursday by a number of prominent lawyers, and what may be called a preliminary organization effected.

The gentlemen connected with the enterprise are ex-Judge Sheldon, the Hon. George Clinton, Spencer Clinton, Adelbert Moot, Sheldon T. Viele, E. Corning Townsend and C. P. Norton. So far very little has been done further than to form an agreement to go forward with the work, and to send a petition to the University, asking the privilege of establishing the school.

One point, as stated by one of the gentlemen interested, is definitely arranged. Ex-Judge Sheldon has been prevailed on to take the laboring oar. He will give his whole time to the work, and will, at present at least, be the only one who will do this. The other lawyers mentioned will take professorships and deliver courses of lectures, but they can do this without giving up their practice. The gentlemen consider that the position of ex-Judge Sheldon, he having just retired from the bench, and his legal and literary abilities, specially fit him for the work. He will take the professorship of municipal law. Beyond this no positions have been arranged, though it is understood that Messrs. Spencer Clinton, George Clinton, Moot and Viele will accept the remaining four of the five full professorships usually connected with a law school, and Messrs. Townsend and Norton will take assistant professorships. The college will start up next fall.

It is with pleasure that we announce the return of Dr. Herman Mynter from Europe, where he has passed several months in the hospitals for study and observation. With health fully restored, he proposes to engage in the practice of his profession, bringing renewed zeal to his works and the added experience and maturity of judgment secured through his travels abroad. We feel the deepest interest in the success of our late editorial conferree, and bespeak for him the earnest co-operation of the profession and the support of the public, which in the past he has done so much to merit.

SUBSTITUTION.—Does the profession realize how much injury is done to physicians and their patients by the substitution of spurious, or the so-called “just as good” preparations, in place of goods of standard reputation? The following letter from Dr. Springer is a case in point.

Respectfully,

BATTLE & CO.,

Chemists Corporation.

VAN BUREN, O., Sept. 10, 1886.

Messrs. Battle & Co., St. Louis, Mo.:

GENTLEMEN—In the case of “insomnia,” which I reported to you in May last, and wherein it required seven drachm doses (hourly, one drachm,) to produce sleep by Bromidia bought at pharmacy in Findlay, it required but one drachm, repeated in one hour, to produce a good night's rest, of the sample bottle you sent me. I also use the Bromidia (Battle & Co.) with the best results in “cholera infantum” and in “hysteria.” *Am satisfied that the article bought at Findlay was “spurious.”*

GEORGE SPRINGER, M. D.

PEACOCK'S BROMIDES.—W. H. Welford, M. D., 2633 State street, Chicago, Ill., writes: “I have used Peacock's Bromides in a number of cases with the best results, especially in epilepsy, one case in particular, C. S., a railroad man, having been compelled to quit work on account of the paroxysms coming on every day. After one week's treatment with Peacock's Bromides, the attacks were considerably lessened; now, after two months' treatment, he seems entirely cured and has resumed work. Any case where there is a nerve sedative indicated, I can cheerfully recommend Peacock's Bromides.

Reviews.

The Science and Art of Obstetrics. By THEOPHILUS PARVIN, M. D., LL. D., Professor of Obstetrics, etc., in Jefferson Medical College. Illustrated with two hundred and fourteen wood cuts and a colored plate. Philadelphia: Lea Brothers & Co. 1886.

The author states in the preface that he has endeavored to write a book which will be useful alike to students and to practitioners. In carefully examining this work, we conclude that he has been eminently successful in preparing a guide in obstetric medicine to students, and we doubt not that like success has attended his efforts for the practitioner. In our experience with medical classes, the need of a text-book which would be both comprehensive and yet within a moderate compass has been felt. The present work includes the result of a large experience in obstetrics, which is presented as only a teacher knows how to unfold the subject to minds eager to grasp general principles; also, to remember details as far as memory would permit. Prof. Parvin has succeeded in this difficult task better than any other author with whom we are familiar, and the present work is admirably adapted for the two classes for which it was prepared. It also contains the latest advances in this science, while showing a wise conservatism in holding fast to principles established by past experience.

The work is too complete to require an analytical review. The high professional standing of the accomplished author, and his success as a teacher, give assurance that he has bestowed upon its preparation the more careful labor as well as the result of a large experience.

It may be said that while the profession possess such works as Barnes and Playfair and Lusk on this subject, further efforts are superfluous; we object to this view. We find in the various works features which show the individuality of the author. The present work is singularly free from "hobbies," while present-

ing the subject in a clear and concise manner, which will make it valuable as a text-book in medical classes.

In looking over the pages, we think Prof. Parvin has performed a valuable service for the profession and we commend his labor.

Manual of Operative Surgery. By JOSEPH D. BRYANT, M. D., Professor of Anatomy and Clinical Surgery and Associate Professor of Orthopedic Surgery, Bellevue Hospital Medical College; Visiting Surgeon to Bellevue Hospital; Consulting Surgeon to the Bureau of Medical and Surgical Relief of Bellevue Hospital; Consulting Surgeon to the New York Lunatic Asylum and to the Northwestern Dispensary. With about eight hundred illustrations. New York: D. Appleton & Co. 1887.

This volume is very properly dedicated to Dr. Stephen Smith, of New York, who was the author of the first hand-book of operative surgery. The two books are quite similar in scope. This is somewhat larger and on certain subjects more exhaustive. It might be safe to say that a physician would find both of great usefulness to him. The cuts are most excellent, and the general style of the book neat. In the first chapter, the author makes some most excellent suggestions as to facts to be ascertained before operation, the preparation of the patient, diet and essential requirements. The second chapter is on the controlling of hemorrhage, and here, too, are introduced many novel and useful hints. The third and fourth are on "treatment of operated wounds" and "ligature of arteries." Through all the eighteen chapters of the book many new and valuable suggestions are made. As we all know Dr. Bryant is eminently a successful teacher, we should expect such a book from him useful to students and physicians.

Outlines of the Pathology and Treatment of Syphilis and other Venereal Diseases. By H. VON ZEISSL, M. D., late Professor at the Royal University, Vienna. Second edition. Revised by M. Von Zeissl; authorized translation and notes by H. Raphael, M. D., Bellevue Hospital. New York: D. Appleton & Co. 1886.

As a clinical observer and teacher of venereal diseases, Professor Von Zeissl has occupied a first rank in Europe. The

appearance in this country of the translations of his work on syphilis was cordially welcomed. The concise and graphic descriptions of the various forms of the disease, the accurate delineations of the pathological lesions, the terse and detailed account of the symptomatology, made it one of the most valuable guides in the study of venereal affections. This second edition has been improved in many ways. It is divided into three sections: I. Gonorrhœa; II. Chancroid; III. Syphilis. To the general practitioner it presents a brief graphic and comprehensible picture of these diseases, and will be found an invaluable aid to the proper diagnosis and treatment of the various venereal affections. The publishers have issued the book in most handsome form.

A Treatise on the Principles and Practice of Medicine. Designed for the use of Practitioners and Students of Medicine. By AUSTIN FLINT. M. D., LL.D., late Professor of Principles and Practice of Medicine and Clinical Medicine, Bellevue Hospital College, New York. Sixth edition. Revised and largely re-written by the author, assisted by Wm. H. Welch, M. D., Professor of Pathology, Johns Hopkins University, Baltimore. Philadelphia: Lea Brothers & Co. 1886.

There is, perhaps, no work on the principles and practice of medicine which has had as great an influence on the practice of English-speaking physicians as "Flint's Practice." Certainly no American physician was better qualified to be a teacher than its distinguished author, who, in the year of his death, completed his fiftieth regular course of lectures on this subject. This last edition was re-written and revised by his own hand, and will be looked upon as the crowning work of a glorious and successful life. In addition to Dr. Flint's revision, his able collaborators have added many new chapters, among which deserving of special mention are the articles upon syphilitic disease of the lungs and cerebral syphilis, general pathology of fevers, and a full consideration of recent discoveries concerning the bacterial origin of various infectious diseases. The work now admirably represents the existing state of the science of medicine, and no

important discovery in pathology nor clinical medicine has failed to receive due recognition.

The Healing of Arteries after Ligature in Man and Animals. By J. COLLINS WARREN, M. D., Assistant Professor of Surgery, Harvard University; Surgeon to the Massachusetts General Hospital; Member American Surgical Association; Honorary Fellow Philadelphia Academy of Surgery. One volume. 184 pages. Parchment muslin binding. Price, \$3.25. New York: William Wood & Co.

After careful study, investigation and examination of many specimens, the writer has compiled this complete book. It is, so far as we know, the only complete monograph on the subject. "Hitherto the study has been carried on in a more or less fragmentary way, different portions of it having received very minute attention and from the hands of the ablest pathologists. The attempt has been made here to study the question from a more comprehensive standpoint, to observe not only the behavior of the various tissues concerned in the process of repair, but also the different phases through which the vessel passes from the moment of the ligature until the condition is reached, after which no further change occurs." The book is illustrated with twelve full-page plates in black and colors.

A Treatise on Simple and Compound Ophthalmic Lenses, their Refraction and Diapetric Formulæ, including tables of Crossed Cylinders and their Sphero-Cylindrical Equivalents. By CHAS. F. PRENTICE. New York: James Prentice & Son, opticians, 178 Broadway.

The firm with which the author of this book has been connected have long been known as skillful and trustworthy practical opticians. This book gives credence that Mr. Chas. Prentice is both theoretically and practically an accomplished optician. The book will be found most serviceable by ophthalmologists as well as all opticians who attempt to make lenses in accordance with instructions. The demand for a work of this kind is necessarily limited, but the price has nevertheless been fixed at the small sum of \$1.50.

The Curability of Insanity. A Series of Studies by PLINY EARLE, A. M., M. D., late Superintendent of the State Lunatic Hospital at Northampton, Mass.

To Dr. Pliny Earle, as much perhaps as to any other writer, is due the credit for the accepted ideas as to the curability of insanity. It is ten years since his first articles were published on this subject, and it certainly is not presumptuous for him to claim that they have greatly modified the aspect of insanity. The statistics which he presents, as well as the arguments, lead necessarily to the conclusion that it is a great saving to the state to maintain hospitals for the cure of the insane, and that it is a curable disease.

A Manual of Obstetrics. By A. F. KING, A. M., M. D., Professor of Obstetrics and Diseases of Women in Columbia University, and in the University of Vermont, etc., etc. With one hundred and two illustrations. Third edition. Philadelphia: Lea Bros. & Co. 1886.

Upon the appearance of the first and second editions of this work, we expressed a decided opinion as to its value. That a third edition is so soon called for, is evidence that the book has earned the approbation of both physicians and students. This last edition gives evidence of careful revision, and contains a number of new illustrations.

A Laboratory Guide in Urinalysis and Toxicology. By R. A. WITTHAUS, M. D., Professor of Chemistry and Physics in the Medical Department University City of New York, etc., etc. 57 Lafayette Place: William Wood & Co. 1886.

This little work, in its arrangement, follows Draper's Laboratory Course in Medical Chemistry. Like it, it is a convenient guide to the student, and even physicians will find here the usual tests, so arranged as to be easily and quickly referred to.



VOL. XXVI.

APRIL, 1887.

No. 9

Original Communications.

INTRA-UTERINE AND VAGINAL IRRITATION.*

By THOS. LOTHROP, M. D.,

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This subject is selected because of its appropriateness in a society devoted to the advancement of the science of obstetrics, and also because of its practical value and interest to the general practitioner. It is too much to expect, however, that any new principle will be enunciated. If in the discussion, which, it is hoped, these few fragmentary thoughts will call forth, even well-established methods of treatment are criticized, and clearer indications for the invasion of the uterine cavity with well-known germicides are made known, the full purpose of the paper will be fulfilled.

Looking back over a period of thirty years, embraced in the professional life of the writer, the revolution in the pathology and therapeutics of pregnancy and the puerperal period seems more like a dream than a reality. If any will recall the professional experience of that period, and review the impotency of medical skill, or, rather, want of skill, in treating what are now termed puerperal diseases, due to septic infection, it will be

* Read before Buffalo Obstetrical Society.

realized how marvelous has been the transformation from the blind gropings of the past into the clearer light of the present.

Semmelweiss, an interne in the Vienna maternity, in 1847, formulated the theory that puerperal fever was the product of absorption of septic matter, and Pasteur later demonstrated that the active principle in the virus was a living organism, one of the microbes of decomposition. The genius of Lister applied the principle of antiseptics to surgery, and Stadfeldt, in the Copenhagen maternity, accomplished a reformation in midwifery by adopting the most careful and systematic antiseptic measures, which reduced, within a brief period, the mortality in lying-in-hospitals from ten to twenty per cent. to less than one per cent.

Still later, the introduction of the mercuric chloride by Tarnier, in 1881, placed in the hands of the accoucher a germicide of rare potency, with which to combat the germs, which these later investigations discovered to be the fons et origo of many, if not all, puerperal diseases.

A consideration also of great weight, the product of earlier teachings, was the sacredness of the uterine cavity and the danger of invading its portals. Besides, the indefiniteness of the indications of treatment in puerperal diseases, on account of the imperfect pathological opinions then prevalent, made the position of the accoucher, in combating the diseases often met with in the lying-in-room, peculiarly unsatisfactory, and his labors negative.

In maternity hospitals, the remark of Fritsch, that "to be laid on the bed of confinement was equal to being delivered to the hangman," has been verified in the alarming mortality which has attended puerperal women when collected together in great numbers.

In this connection, we need also to call attention to the susceptibility of the puerperal woman to septic infection, and this condition is due to hyperinosis of the blood and the irritability of the nervous system, which are developed during pregnancy. The rapid involution in the genitals and adjacent parts, the

increased activity of the skin, kidneys, lungs and heart, destined to circulate and eliminate waste material, are important factors in the problem.

It has been estimated that puerperal fever alone has numbered among its victims more of the human race than all the sanguinary wars recorded in history. While this, at first sight, may seem an exaggerated statement, a careful investigation reveals abundant reason for regarding it to be within the limits of possibility, and even probability. If the number of births daily are equal to the aggregate of minutes in the diurnal rotation of the earth, it will be seen at once that septic infection has had the broadest field for its occupation, and the victims who have fallen by the way under the older systems of medical treatment, are among the innumerable hosts, beyond the computation of the human mind.

Let me preface, therefore, the paper herewith presented to the society, by accepting the germ theory in the causation of puerperal disease, and, as a consequence of this pathology, the use of germicides in their treatment.

The puerperal woman presents the most fertile condition for septic infection, more favorable even than any condition resulting from traumatism. It is strange that the medical profession have delayed to recognize this fact until so late a period, and to make use of the measures at hand in combating this pathological condition. This conservatism, in accepting new theories, which run counter to long-established principles, has characterized the profession in other departments of medical science. The present day witnesses a more ready acquiescence in the results of scientific research, and a greater readiness to apply new methods in daily practice.

With these general remarks, which seem pertinent to the subject under consideration, let me now direct your attention to certain local conditions in the puerpera, which are essential to an intelligent understanding of the purposes of irrigation. And, first, the condition of the uterus and, indeed, the entire parturient canal, after the expulsion of the foetus, claim our special

study. If, perchance, it were our privilege to examine a uterus at full term, after it has been relieved of its contents, and the genital tract were exposed, we would wonder, not that septic infection occasionally occurred, but that women are exempt from its danger as often as they are. The endometrium, for a few days after parturition, is covered by a greyish decidua vera, its surface presenting an unhealthy, unclean, diphtheritic look, with shreds of membranes, consisting of small portions of the decidua reflexa—partially detached and often decomposed. The placental disk is raw, irregular, and covered with blood clots, closing the mouth of the uterine sinuses. The uterine cavity is occupied with the bloody lochia, the product of the involution which is going on in the organ, by means of which it returns to its normal size and weight. Passing down to the cervix and os uteri, we find frequently lacerations and abrasions, sufficient time not having elapsed for granulations to set up, and thus to form a safeguard against absorption. If the labor has been tedious the mucous membrane of the vagina is more or less abraded, the fourchette torn, and, unless great care has been exercised in the passage of the foetal head, the perineum has suffered injury. Along this tract the lochial discharge passes, running over a broad surface, offering numerous points for its absorption. If, perchance, a poisonous element has entered the genital canal, it finds here the more favorable conditions, both local and general, for its activity and cultivation. The period is too early for the healing process to have started and become so far advanced, that the lacerated surfaces are guarded against absorption, while the endometrium covered with organic matter, in which decomposition has been started, offers a quick avenue for the passage of living organism into the circulation, from which serious and perhaps fatal results may accrue. A normal labor, under the most favorable auspices, may be followed in a few days by symptoms of septic infection, as chills, a severe pyrexia, offensive lochia, etc., and the bright hopes and anticipations, the first outbursts of a safe delivery, are changed to forebodings of danger and alarm. This transformation may occur even after

the most careful attention to details on the part of the accoucher.

These unfavorable changes are more frequent and dangerous in cases where the natural progress of gestation has been interrupted and abortion or premature labor takes place. Here the retention of portions of the placenta is more likely to occur, and, besides, the system is not prepared for the change which takes place as a result of the discharge of the foetus at an earlier period than full time, and, therefore, falls an easy prey to the insidious entrance of the microbe of decomposition. Nature is exceedingly jealous in her oversight of the reproductive organs, and manifests her displeasure at any interference with their office in the economy of nature, by visiting the victim with deserved chastisement. Whether it be septic infection or pelvic inflammation, the source is the same—the introduction of the products of decomposed organic matter.

While septic infection offers the most general and frequent indication for the use of uterine irrigation, there are other conditions following parturition in which it is specially called for. The use of *hot water* in hemorrhage is a recognized procedure in surgery, and the accoucher has been ready to borrow, from a co-ordinate department of medical science, one of the most efficient means for arresting post partum hemorrhage. The fact that hot water is always at hand, and its reliability as a hæmastic generally known to the profession, calls for its use in cases of uterine inertia or the hemorrhagic diathesis, in which severe flowing follows the expulsion of the foetus, as the most efficient means for its arrest. The irrigation of the uterus with water of a temperature of 110° to 115° , will be followed often by contraction of the organ, and the arrest of the hemorrhage, and the rescue of the patient from death.

The use of hot water in softening the rigid os and cervix uteri, in labors in which the necessity is urgent for prompt delivery, on account of eclampsia, etc., is a well-recognized and efficient method of treatment. In cases where other means fail, the irrigation of the cervix with water of a temperature of 110° , con-

tinued for one or even two hours, until the rigidity is overcome, is attended with such happy results, that it is commended earnestly to your attention. A case is recalled of a patient at full term with uræmic convulsions, in whom dilatation was quickly accomplished by vaginal irrigation, after chloroform, morphia and atropia had failed, and a forceps-delivery of a dead baby resulted. The utility of this measure is beyond question.

It is, however, in septic infection that vaginal and intra-uterine irrigation find their greatest and most frequent use. Here the results from their judicious employment are marvelous. It is not too much to assert that thousands of women have been saved to enjoy the blessings and joys of maternity, for which they had suffered during a long pregnancy and a painful parturition.

The symptoms indicating the use of irrigation are mainly the presence of a chill succeeded by fever, following within twenty-four or forty-eight hours or even later after delivery; and an interesting question here presents itself—what temperature shall determine the accoucher to order the intra-uterine irrigation? If following a chill, the temperature rises to 101° or 102° , and the pulse corresponds in frequency, and the medical attendant is convinced that septicæmia is the cause of the pyrexia, the thorough washing out of the uterine cavity is indicated. It may be inquired here—how frequently is it safe to repeat the irrigation? and in reply, let me say, that the rise of the temperature, after the first irrigation, is an omen that calls for the repetition of the washing. Some doctors are so enthusiastic as to recommend the constant irrigation of the uterine cavity in severe cases. This can be justified only in desperate cases. In the majority of patients, the intra-uterine washing can be repeated every four hours and more often two or three times per day will be ample to control the pyrexia. Often the wire curette will successfully supplement the irrigation, by removing decomposed organic matter, which the water fails to dislodge.

A simple tube of hard gutta percha and a fountain syringe are all that is necessary to carry out the treatment. The Cham-

berlain tube of glass has long since been discarded in my practice, and an inexpensive hard rubber tube is used, which is thrown away at the completion of each case, in order to be sure that the disease may not be communicated to other patients. Certain precautions are necessary to be observed in the use of the tube. The introduction should be with care and gentleness; and before the water is allowed to pass into the uterine cavity, the air should be carefully expelled from the tube.

It may be asked in this connection—is there danger in the use of this method of treatment? and I answer, that fatal results have in rare cases attended its use. Besides, secondary uterine hemorrhage has followed the irrigation, the thrombus formed at the mouths of the uterine sinuses having become detached. There is also danger of forcing the antiseptic lotion into the circulation, by introducing the distal end of the tube into the mouth of a uterine sinus. The injection of the fluid into the peritoneal cavity through the fallopian tube, has been regarded as a danger. But these accidents, while they should be recognized, should not deter the accoucher from the only method now known, to reach the source of the septic material, and to remove it from the uterus.

In this connection, the germicide to be employed is a matter of importance. Let me give the proportions of some of the more efficient remedies:

1 to 4,000 of Biniodid. Hydrarg. requires 3 21-25 grains of Biniodid., Potass. Iodid. $2\frac{1}{2}$ gr., water 1 quart.

1 to 8,000 of Biniodid. Hydrarg. requires 1 23-25 grains Biniodid., Potass. Iodid. gr. j, water 1 quart.

1 to 15,000 of Biniodid. Hydrarg. requires 1 6-2500 grains Biniodid., Potass. Iodid. gr. $\frac{3}{4}$, water 1 quart.

1 to 2,000 Bichl. Hydrarg. requires 7.7 grain Bichl. in one quart of water.

The use of the iodoform suppository, following the intra-uterine irrigation, efficiently supplements the treatment. Dr. Garriques recommends a suppository, composed of one hundred grains of iodoform, and finds valuable results to follow its use.

Let me here suggest that a smaller quantity, a scruple for instance, be used at first. The comparative value of the mercuric preparations need not be considered in this connection. The bichloride is more irritating and less expensive. The biniodide is safer, more powerful, but more expensive. We have been accustomed to use the bichloride, and have referred to the use of the biniodides from the experience of others.

The use of carbolic acid as an antiseptic for our instruments is valuable. Boro-glyceride, boracic acid, salicylic acid, potass. permanganate, and other germicides have been brought to the notice of the profession, but the mercuric preparations have been so satisfactory and efficient, that we regard the other germicides as auxiliary agencies to be used in case there should be any idiosyncrasy on the part of the patient, contra-indicating the mercuric salts.

It may be asked in this connection, if there is danger of the constitutional effects of mercury in the free local use of its compounds, as we have advised. The writer has witnessed one case only of ptyalism from the use of the mercuric chloride. In the many cases in which he has used these germicides, no unpleasant results have been experienced, except the one mentioned. It is well to be watchful for the constitutional effects of these powerful agents, but the danger is limited, and should not deter the accoucher from their use.

A simple precaution should be observed in the use of the intra-uterine douche. The cervix and os should be sufficiently dilated to permit the egress of the fluid, and if contraction of the uterine canal has gone so far that the tube cannot be easily introduced, the uterine dilator should precede the tube, so that ease of introduction and free egress may be maintained.

The use of vaginal irrigation in puerperal cases should be referred to in this paper. It was the practice, a few years ago, to wash out the vagina in all cases. The necessity for this procedure is not apparent. Wherever there is observed an offensive lochia, or a feeling of discomfiture from the presence of clots in the vagina, the use of the vaginal douche will be a source of

safety and of comfort to the patient; but care should be exercised in their use. Uterine colic has often resulted from the ingress of the fluid into the uterine canal, too much force having been employed in injecting the fluid, or the distal end of tube placed so near the os, that the uterus has received a larger share of the medicated lotion than its needs called for, and it has simply rebelled.

It is quite beyond the purpose of this paper to call attention to the various diseases in which irrigation may be indicated. The current of medical thought, at this time, turns towards the septic origin of nearly all the diseases arising in the puerperal period. If, therefore, sepsis is accepted as the cause of these complications, the use of germicides internally and externally along the genital tract will be indicated in their successful treatment. At least it may with truthfulness be affirmed, that already a great revolution has been accomplished in the pathology and therapeutics of the puerperal period. How far these opinions will be extended into the domain of many pathological conditions, at present not clearly defined in their limits, it will be too much for the writer to anticipate. But this much may be safely stated, that sepsis offers the only basis upon which to found a rational pathology of puerperal diseases, and if so, the use of antiseptics locally and constitutionally offers the surest means for curative results.

Clinical Reports.

*FROM DR. H. MYNTER'S SURGICAL CLINIC AT THE
GENERAL HOSPITAL.*

[Reported for the JOURNAL by A. R. DAVIDSON, M. D.]

GENTLEMEN—A week ago to-day you saw this patient, who, as you will remember, suffered from very large syphilitic ulcerations of left femur and crus. By aid of iodide of potash in large doses and thermocautery locally, I had succeeded in changing the old indolent ulcers, so that a healthy, granulating,

but very large, ulcer was then present. I, therefore, tried to cover it with flaps of skin, after the method of Thiersch, and, as you will see, the flaps have adhered where they were transplanted. As this is a new method, I will recapitulate the leading points. While by Reverdin's method small pieces of skin were laid on the granulating surface, the method of Thiersch is different, as here we have to remove the granulations with a sharp spoon down to the firmer underlying tissues. The copious bleeding is stopped by pressure with compresses for about ten minutes, the compresses being soaked in a solution of chloride of sodium (6-10 per cent.)—60 centigrams to 100 grams. Corrosive sublimate or other strong disinfectants must not be used, as they destroy the vitality of the cells. When the bleeding is stopped, the flaps are cut out from the well-cleaned leg or arm with a razor. The flaps should be five to ten centimeters long, one to two centimeters broad, and are transferred from the razor directly on the shining surface, and by aid of two probes completely unfolded. They should be as thin as microscopical preparations. With a soft sponge, dipped in the same solution, they are pressed against the wound, and care must be taken that no air-bubbles or blood are retained under them, and that the margins lie smoothly; otherwise, pus and secretion may work in under the flaps and loosen them. After the wound is closed with the flaps, it is covered with protective, dipped in the same solution, an antiseptic occlusive bandage is applied and left undisturbed for eight days, and when then removed, you will find the flaps adherent and the wound almost healed. I told you that these flaps adhere to almost all tissues, even to bone deprived of its periosteum, and that we here have a method by aid of which even very large wounds may be healed with astonishing rapidity. In course of time, the flaps grow in thickness and become movable on the underlying tissues.

The next patient which I show you here has an ulceration, which I will defy any surgeon to heal by any other method than Thiersch's transplantation; yes, for which most surgeons would advise amputation. As you see, he has lost almost all the skin on

the left crus, from the knee to the ankle, on account of a phlegmonous erysipelas with gangrene of all the subcutaneous tissue, leaving the fascia and all the muscles exposed. I simply show him to you now that you may get an idea of lesions, which may be treated successfully by this method.

Formation of pus may occur (1) on the surface of wounds healing by granulation; (2) on serous and mucous surfaces, as in empyema, arthrititis, peritonitis, etc.; (3) as a collection imbedded in the tissues, and bounded by an abscess membrane, an abscess, and (4) as in this case, as an infiltration in the connective tissue, with a tendency to spread, and no disposition to self-limitation. It has no abscess membrane as the abscess has, and is called purulent infiltration, diffuse inflammation, phlegmonous erysipelas, and phlegmone diffusa.

English writers apply the name phlegmonous erysipelas to the diffuse inflammations and suppurations attending erysipelas when it attacks the deeper layers of the skin and the subcutaneous tissues, while the French make a distinction between erysipelas and this disease, calling it phlegmone diffusa. Modern science has shown that they are identical, having for their cause a peculiar poison, analogous to that which Koch showed produced gangrene in mice. The effect of this poison is to produce rapid death of the tissues when brought in contact with it through the lymphatics. The poison, if it be called so, is the micro-organisms called bacteriæ, which are found everywhere where putrefaction takes place. Normal urine, for instance, is innocent if brought in contact with the subcutaneous tissues through a wound in the bladder or urethra, but putrid urine produces immediately purulent infiltration. The diffuse swelling of the fore-arm following mechanical injuries of a finger, belongs to the same class; so does inflammation from rattlesnake poison.

Purulent infiltration is characterized and distinguished from erysipelas by a more boggy feeling, deep soreness, rarely fluctuation, tendency to surface gangrene by cutting off the vascular supply and gangrene of the subcutaneous tissue. By incision, a

thin, foetid pus escapes, mixed with shreds of connective tissue ; emphysema is often present, and the patient offers the usual picture of severe septicæmia. In regard to treatment, always make large incisions, as here was done, and cut as much of the sloughing tissue away with scissors as you can. Continuous water-bath is then often of great service. Roborantia and stimulating treatment becomes necessary early in the disease, if you do not succeed in arresting the progress.

The third patient has something the matter with the ankle-joint, but what this something is I doubt if any of you could tell me from the history you just have heard. The history of a patient ought to be so written that you all could form an intelligent opinion of the disease from hearing it, and then complete it by your objective examination. As this history is sorely defective in this regard, let us examine the patient together and see if we can find out what ails him. As you see, there is considerable swelling around his right ankle. Might this be of syphilitic origin? He denies ever to have had syphilis, and, as you know, syphilis is rare in the articulations, while common in bone and periosteum ; attacks especially tibia, clavicle, ulna, sternum, cranial bones, nasal bones, palate and maxilla. Syphilitic lesions of bone commence late in the disease, originate mainly from gummata, and may occur as an osteoperiostitis, which appears as an infiltration of cells in the deep layers of the periosteum, while, at the same time, the Haversian canals enlarge and become filled with gelatinous material, the whole forming a soft node. If the cells undergo ossification, exostosis or hard node occurs.

Syphilis may show itself as an osteoporosis, as caries, caused by gummata, especially in the cranial bones, as necrosis, also most frequently in the cranial bones. The patient, however, has never had, nor has he now, any symptoms of syphilis.

The next question is in regard to injury. Which injuries are frequent at the ankle? We meet here especially fractures of tibia, fibula and astragalus, sprains, contusions, etc. Fractures are either direct or indirect — direct on point of injury, indirect

on point of predilection. The two malleoli form a recess into which astragalus fits, so that only extension and flexion is permitted in the hinge, except when the foot is strongly extended, when some lateral movement is possible.

If a patient falls on the bottom of the foot, tibia receives the whole weight and fibula escapes. When force is applied to the inner or outer margin of the foot, malleolus externus is submitted to great pressure by abduction and adduction. In the first place, abduction, malleolus externus is forced upwards and outwards by contact with the outer surface of the os calcis, and the fibula fractures about two inches above the joint. If the violence is great, malleolus internus is fractured too, unless the ligaments are ruptured. In the second place, adduction, the malleolus externus must follow the os calcis inwards, and is then broken on a line of the joint, where the upper outer margin of the astragalus forms the pivot. The astragalus is less exposed to fractures and the cause is generally a fall on the foot. This man has received no injury which could produce fractures. Sprains and contusions may also be excluded.

He might then have an arthrosis, by which we understand an inflammation of a part or of all the constituents of a joint. An arthrosis may be acute or chronic, may come from local or constitutional causes. The local causes may be wounds, bruises, sprains, cold, etc., and the arthrosis then generally commences as a synovitis.

The constitutional causes may be rheumatism, gout, pyemia and exanthematic diseases, and, the most frequent of all, tuberculosis. If the cause be rheumatism or tuberculosis, the bones, ligaments and cartilages suffer first; if pyemia, scarlatina, etc., it commences as a purulent synovitis. The gonorrhæal arthrosis I consider of pyemic nature.

An arthrosis in the ankle-joint commences often in an insidious manner, as in this case, with soreness and stiffness, which subsides again, but soon returns, and soon is attended with swelling in those parts of the joint where the least resistance is encountered: in front and between the malleoli, later on both sides

of the tendon Achilles. If the ligaments participate, lateral mobility occurs; if the cartilages and bones are inflamed, grating in the joint takes place.

Abscesses may form, except when fungous granulations are present; the swelling is then semi-elastic, the color of the skin natural. If it begins as an osteitis or epiphysitis, we find enlargement and expansion of the bones.

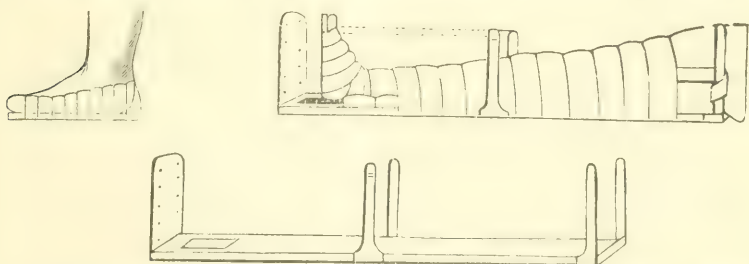
The pain is deep-seated, boring and gnawing, and produced by movements in the affected joint. You remember that Choparts' joint allows only rotation of the anterior part of the foot, the astragalo-calcaneus articulation abduction and adduction, the astragalo-crural articulation extension and flexion. If we now return to our patient, then he tells us that he comes from healthy parentage; has never been sick before. His disease commenced some two months ago without known cause, with pain, stiffness and swelling around right ankle-joint, which subsided again and then returned. He has been unable to use it since. If you look at the ankle, you discover a diffuse swelling of the whole joint, it being two inches more in circumference than the left. The swelling is most prominent in front between the malleoli and behind on both sides of the tendon Achilles, the skin has its normal color, the feeling is semi-elastic and there is no pus. I punctured it yesterday with a hypodermic syringe to satisfy myself on that point. The pain is excruciating by flexion and extension in the astragalo-crural articulation, and is much relieved by extension in this joint. No pain by abduction and adduction or rotation.

We find, besides, slight lateral mobility. You see, therefore, that all the symptoms point to a subacute or chronic affection of this joint, and, I believe, we safely can say that he has an osteo-arthritis of the ankle-joint, probably of tuberculous nature. We must not forget that inflammation of tendons and caries of astragalus may produce similar symptoms; but in inflammations of tendons, the swelling appears first behind and following the course of the tendons; in caries astragali, the swelling appears some distance anteriorly to the astragalo-crural joint. What is

the prognosis of our patient? We can agree upon one point: that he has a serious lesion, which in time, and perhaps very soon, may necessitate serious operations, probably re-section of the joint.

How shall we then treat him? It would be good surgery already now to open the joint, and then act according to what we find—drain, if the bones are healthy; resect, if they are diseased; extirpate the capsule, if tuberculous, etc. But the great relief he finds by extension of the joint, and his good bodily condition, makes me inclined to wait some time and try methodical extension and elastic pressure. Ignipuncture has been used frequently, recommended especially by Dr. Roswell Park, and I should use that if I knew that the trouble had started as an epiphysitis, and if there were reasons to believe that it yet was local. To go into a joint, we do not know where or why, with a red-hot iron, I scarcely consider advisable.

It has always been rather difficult to apply extension to the ankle-joint, but I will show you here an apparatus, invented by my friend, Dr. Hansmann, first assistant surgeon in the General Hospital in Hamburg, which I consider excellent. It consists



of a splint about eighty centimeters long, with an upright foot-piece and two upright bars on each side. The foot, when lying on the splint, is about twenty centimeters from the foot-piece. A wooden sole is put under *planta pedis*, and fastened with strips of adhesive plaster (Fig. 1), and three screws are then inserted on each side of the wooden sole, to fasten the strings to. The foot-piece and the lower bar are perforated with holes, through which

screws pass, terminating in hooks. The two upper bars are used to fasten two long pieces of adhesive plaster, by aid of which the contra-extension is made from the femur. The apparatus may be used with advantage in pedes vari and valgi, fractures of the ankle-joint, inflammations in the astragalo-crural joint, for after-treatment after Phelps' operation, etc. We will apply it here, and wait a time to see the result.

Translations.

THE PHYSIOLOGICAL AND THERAPEUTIC ACTION OF ACETANILIDE OR ANTIFEBRIN.

By DR. WEILL.

Translated from *Bull. Gen. de Therapeutique*, by F. R. CAMPBELL, M. D.

At the request of our esteemed chief, Prof. Dujardin-Beaumetz, we have undertaken an experimental study of a new remedy, acetanilide, and now communicate the results of our investigation.

History.—Acetanilide has long been known to chemists, but it is only within a few months that it has attracted the attention of the medical world. To Drs. A. Cahn and P. Hepp, assistants at the clinic of Kussmaul of Strasbourg, is due the honor of having for the first time studied the therapeutic action of this substance.* These gentlemen have employed acetanilide in a number of fevers, in doses of from four to fifteen grains, the dose never exceeding thirty grains. A dose of four grains of acetanilide is equal to a dose of fifteen grains of antipyrine, and to produce a rapid and energetic effect it is better to give a single large dose than a number of small ones.

"None of our patients," say Cahn and Hepp, "have complained of the medicine, and their general condition during the periods of apyrexia was excellent. The only troublesome symptom was a slight cyanosis of the face and extremities, but this phenomenon rapidly disappears."

Shortly after the publication of the article of Cahn and Hepp, M. Lepine of Lyons gave the results of his physiological and clinical experiments.† This eminent professor after having studied the

**Centralblatt fuer klinische Med.*, Sept., 1886.

† *Lyons Medical*, 1886, No. 44.

action of the drug upon the temperature, circulation, blood and nervous system of animals, employed it in non-febrile diseases, especially in locomotor ataxia for the lightning pains. Lepine concludes that acetanilide is not only an antithermic but also possesses valuable properties as a nerve tonic and sedative.

M. Mouisset, Prof. Lepine's assistant, published his observations on the use of antifebrin in seven cases of typhoid fever. Mouisset found that it was necessary to give seven and one half grains of acetanilide to obtain the effect produced by sixteen grains of antipyrene. The drug is more active if given but once or twice in twenty-four hours, as the system becomes accustomed to its presence if given more frequently. Cyanosis was observed three times, but it was never accompanied by *malaise* and was always of a very transitory character.

When Lepine's article was published, Krieger gave a report of his experience with the drug in eighteen cases of fever (four typhoid, three malarial, four pneumonia, four rheumatism, two pleurisy, one diphtheria, one puerperal.) According to him acetanilide was much more efficacious as an antithermic in typhoid and malarial fevers than in other acute diseases. Krieger has also used acetanilide successfully in the treatment of facial neuralgia, and claims that it has antiseptic properties.

Chemistry of Acetanilide.—Acetanilide is a white, odorless, and almost tasteless crystalline substance. It is soluble in 160 parts of cold water and in 50 parts of warm water; in three and one-half parts of alcohol, six of ether and seven of chloroform.

It melts at 105° C. and volatilizes at 292° C. When heated it is decomposed by the action of acids and alkalis forming aniline and acetic acid. The formula of acetanilide is C^6H^5N , and was discovered in 1845 by Gerhardt. It has also been called *phenylacetamide*.

Pharmacology.—Acetanilide may be prepared in many ways. One of the most convenient is the following: In a one-litre flask placed in a sand bath and connected with a condenser surrounded by cold water, place pure colorless aniline, 372 grammes; crystallizable acetic acid, 240 grammes. Heat to the boiling point and maintain the temperature for four hours. The vapors condensed in the still should flow back into the flask. The acetanilide thus formed is separated by successive crystallizations. The test for acetanilide is to agitate the

suspected substance with ether, decant and evaporate to dryness, and pour upon the residue some drops of pure sulphuric acid with a crystal of bichromate of potash. If acetanilide is present a characteristic rose-colored precipitate is formed.

Another test is to agitate the suspected liquid with chloroform, decant and evaporate the chloroform in a capsule containing a little protonitrate of mercury, when a green color appears.

With these delicate tests the urine of patients who had taken from twenty to thirty grains of acetanilide a day was many times tested and the substance was never detected. But when some crystals of acetanilide were dissolved in a litre of normal urine the characteristic re-actions were always observed. We may then conclude that the drug is not eliminated by the kidneys as acetanilide.

Acetanilide should not be used,

1. If it is not odorless.
2. If it is not white.
3. If it is not converted into a colorless liquid when heated upon platinum foil.
4. If it is not entirely volatile.
5. If it gives with hypobromite of soda a red orange precipitate. This last re-action, which is very delicate, takes place whenever there are traces of anilide in the anti-febrin.

Posology.—Acetanilide may be given in capsules or dissolved in a little wine. The dose varies from four to eight grains, according to the disease and the effect desired. The dose should not exceed eight grains whatever the quantity given in 24 hours.

PHYSIOLOGICAL STUDY OF ACETANILIDE.

§ 1. *General Physiological Effects.*—In small doses, acetanilide has no effect upon man or animals in a normal state. Injected subcutaneously in rabbits and Guinea pigs, or inserted through an œsophageal tube into the stomach of dogs, the drug produces no disturbance, no lowering of temperature. Four hours after breakfast I took a dose of one drachm of acetanilide in wine without observing any effect upon the physiological functions whatever. The temperature taken every fifteen minutes, remained normal, the smyglographic tracing of the pulse was unchanged, and there was no peculiar sensation which attracted our attention.

In larger doses, two to four grains to the pound of the animal,

acetanilide is poisonous and we observe a train of symptoms which terminate in death. Within a few minutes following the ingestion of the drug the animal manifests symptoms of weakness, stupor, slowness of movement and a rapid and steady reduction of temperature. Although the animal was wrapped in flannel, the re-action was but slight, the respiration was slowed and then became irregular; soon the body becomes cold. There is anæsthesia of the posterior part of the body; sensation is at first diminished and then disappears completely, although the anterior part of the body is still susceptible to pain. Lastly collapse comes on attended with convulsive movements. These convulsions are most marked in the rabbit, occurring two or three times a second and continuing until death. Death comes on slowly, occurring usually within from twenty-four to thirty-six hours after the ingestion of the drug.

§ 2. *Action of Acetanilide upon the Principal Physiological Functions.*—In toxic doses respiration is retarded, becomes deep, and a tendency to asphyxia is observed. The action of the heart is at first accelerated and the impulse increased; later the pulse becomes slow and irregular. The same increase of the systolic impulse in the first period is observed in the frog. The blood pressure is also modified. The first effect upon the circulatory system is to increase the amplitude of the intravascular oscillations. Then the smyglographic tracings show a decrease of blood pressure and the pulse becomes frequent and irregular.

In a rabbit to which eight grains of acetanilide had been administered subcutaneously, we observed that the blood vessels of the ear, dilated before the experiment, soon became contracted, anæmic and cold.

The elements of the blood undergo important changes. The quantity of oxyhæmoglobin in a dog weighing seventeen pounds, to which eighty grains of acetanilide had been administered, fell gradually from 12 to 5½ per cent. Two hours after the ingestion of the drug the spectroscopic band showing the presence of methæmoglobin appeared.

We have already stated that smaller doses of acetanilide have no effect upon the temperature, but in large doses a very marked antithermic effect is produced, the temperature falling eight or ten degrees below normal. This reduction of temperature is at first peripheral,

but soon becomes central. It begins within a few minutes after the administration of the drug, and attains its maximum in about four hours. In a rabbit a dose of eight grains reduced the temperature $1\frac{1}{2}^{\circ}$ C. A dose of twenty-two grains reduced the temperature 8° C. The animal to which this last dose had been given lived twenty-four hours with temperature reduced, before dying.

Action on the Nervous System.—Acetanilide has an undoubted action on the nervous system, as is clearly shown by the results of chemical and experimental studies. It is the experimental study which has given valuable information regarding its action in this way.

a. Acetanilide in small doses seems to have no effect upon the functions of the cerebrum. The animals retain all their intelligence, respond to caresses, and remain in possession of their will power. It is only in the last stage of the intoxication when the phenomena of asphyxia have appeared that the cerebral functions seem to be abolished with those of the nervous system in general.

b. But the functions of the spinal cord and medulla are constantly affected when the drug is given in sufficient doses. Reflex action is diminished in a marked degree, and, as we have observed before, the excitability of the pneumogastric nerve is perceptibly lowered, although it is not abolished. The action of the drug upon the bulbo spinal nervous system seems to be manifested by a reduction of the excito-motor functions, as is shown by the phenomena of collapse, loss of motion, and by the effects upon the respiratory and cardiac functions, which are intimately related with those of the medulla and cord.

c. With regard to the influence of acetanilide upon the peripheral nervous system, we have already observed that sensation is diminished especially in the posterior part of the body, where it may reach a state of complete anæsthesia. Besides these there are vaso-motor disturbances, which are particularly noticeable in the region of the ear. The vaso-motor disturbances are produced indirectly by the action of the drug upon centers located in the medulla oblongata, the region where the heat center is also found.

§ 3. *Mechanism of the Action of Acetanilide.*—If we now attempt with the data which have just been set forth to give an explanation of the physiological action of the medicine, we may safely maintain the following :

1. The drug has a definite action upon the elements of the blood.
2. It also has a marked effect upon the nervous system.

To these two factors we must attribute the action of acetanilide, although we cannot state whether these modes of action are entirely distinct or interdependent. It is certain, however, that blood changes are effected and the nervous symptoms may either result secondarily from these or the drug may act primarily upon the nerve centers. In either case the activity of the phenomena of nutrition are reduced, as manifested by the slowing of the heart and respiration, the reduction of temperature, the diminution of sensation, etc. When however we transport our investigations to the domain of pathology and endeavor to harmonize the data which we have obtained from physiological researches, experiments which are always under the control of the investigator, with the varying conditions found in disease, we are compelled to believe that the most marked effect of the drug is manifested by the changes produced in the nervous system. Indeed, in many patients treated by acetanilide the action of the drug seemed to be exclusively upon the nervous system. How else can we explain the anæsthetic action observed without any effect upon the temperature, or any of the disturbances which follow important changes in the blood? It would seem that in medicinal doses acetanilide affects only the exaggerated and abnormal action of the centers located in the bulb and cord. Toxic doses on the contrary seem to attack at once the normal physiological fountains of the bulb and at the same time profoundly alter the character of the blood. In this way we may explain how the drug acts at one time exclusively upon the temperature, at another upon other functional phenomena dependent upon centers located in the myelaxis, the temperature not being affected in the least.

Therapeutics of Acetanilide.—We have used acetanilide in fourteen cases in the service of Prof. Dujardin-Beaumetz, at the Hopital Cochin, as follows: Two cases of typhoid fever, three cases of acute articular rheumatism, one case of pneumonia, one locomotor ataxia, one uræmic convulsions, one acute meningitis, one spinal sclerosis, two cases of tuberculosis and two of epilepsy. In cases of tuberculosis doses of four grains produced profuse sweating and the patient seemed to be weakened after the use of the drug. The antipyretic effects were not maintained as long as in other febrile diseases. In the light of these

facts we conclude that acetanilide cannot be advantageously employed in tubercular affections.

Neither of the two epileptics has had a fit since we began the use of acetanilide in doses of twenty-four grains a day. On account of the short period in which we have used the drug in these cases—one month—we can give no definite conclusion as to its utility. We think however that it may prove of great value in the treatment of this obstinate affection. We do not care to discuss the value of antithermic medication, a subject which has been much criticised of late. We will simply state that acetanilide has a rapid and intense antithermic action without the inconvenience of most other antipyretics. The administration is very simple, it is almost tasteless, it never produces nausea, nor that state of semi-intoxication caused by antipyrin. The cyanosis occasionally observed is accompanied by no alarming symptoms and rapidly disappears.

The amount of acetanilide which will produce an effect equivalent to fifteen grains of antipyrin varies. According to Cahn it is four grains, according to Krieger, six grains, and according to Mouisset, eight grains. This matter requires a comparative study of the two substances, a subject which has not yet been undertaken. In typhoid fever, however, four grains is an amply sufficient dose. Patients with this disease are very susceptible to the drug. In one of our cases a dose of four grains reduced the temperature 3.2°C . (5.8°F .) In another case eight grains caused cyanosis in a robust typhoid patient in the beginning of his disease.

In acute rheumatism the antithermic effects of acetanilide is much less; eight grains may be given twice in twenty four hours. The drug has the double advantage of reducing temperature and pain. We have not had an opportunity to try acetanilide in cerebral rheumatism where the drug would probably prove of great value. As a nervine, acetanilide is indicated in a great number of nervous affections, and seems to be an improvement upon bromide of potassium, as it will act in cases where the bromides are inert. Two of our patients who had "lightning pains" were relieved after many other remedies had been tried in vain.

If on the one hand a tolerance for acetanilide is easily established after prolonged administration, we nevertheless avoid the untoward effects of bromide of potassium, fetid breath, malaise, intellectual

hebetude, muscular weakness, eruptions, etc. In nervous diseases acetanilide produces absolutely no effect upon the temperature, and very seldom causes sweating, the digestive functions are undisturbed, nor have we observed any other trouble. In nervous diseases the dose must be larger than in febrile affections. Begin with fifteen grains in twenty-four hours, to be rapidly increased to thirty grains.

In conclusion we will briefly recapitulate the facts ascertained as the result of our investigations :

1. Physiological action.

Acetanilide has a marked effect upon the nervous system manifested.

(a.) By symptoms of collapse after a short period of excitement.

(b.) By general anæsthesia and analgesia.

(c.) By modification of the functions of the heart and blood vessels, as shown by the increased intravascular pressure and peripheral vaso-constriction.

(d.) Central and peripheral reduction of temperature.

(e.) In toxic doses acetanilide profoundly modifies the elements of the blood, particularly the oxyhæmoglobin which is at first reduced and then changed into methæmoglobin. From this results a diminution of the respiratory powers, symptoms of asphyxia and death.

(f.) The mechanism of the action of the drug seems to be principally due to its influence upon the bulbo-medullary cells.

2. Therapy.

(a.) Acetanilide is a powerful antithermic and a valuable nervine.

(b.) As an antithermic it is of the greatest value in all diseases where it is desirable to combat hyperpyrexia.

(c.) As a nervine it is indicated in all nervous diseases characterized by morbid hyper-excitability, such as epilepsy.

(d.) A toleration for the drug is established by its prolonged and uninterrupted administration.

(e.) Diuresis is often diminished, sometimes stationary, but never increased by acetanilide.

Medical News.

MEDICO-LEGAL ASPECTS OF SKIN GRAFTING.—On August the 30th, 1886, in the presence of Drs. Hardon, Westmoreland and Howell, Dr. Henry Wile of this city proposed to a boy of thirteen years to submit to the removal of some small skin-grafts from his arm, to be placed upon an extensive ulcerated surface on the head of his cousin, a little girl somewhat younger, whom he had accompanied to the office. The boy readily consented, and minute grafts were excised without causing him any inconvenience.

In the afternoon of the same day, the father of the boy went to the office and charged Dr. Wile with having cut "his son's arm to pieces." He subsequently swore out a warrant charging him with assault and battery, whereupon Dr. Wile waived examination and gave bond in the sum of two hundred dollars for his appearance at the City Court.

The trial was before Judge Van Epps without a jury, and after reviewing the facts as above given, the Judge stated that the boy had more than ordinary intelligence and discretion, and that a child of his age, under such circumstances of intellectual development, could commit crime and be punished according to law. He considered, therefore, that he had a right to give his consent, so that no crime was committed, and the case was dismissed.—*Atlanta Medical Journal*.

THE CHEMICAL MAN.—A man weighing 70 kilograms (156 lbs.) is composed of 13 elements, 5 gaseous and 8 solid. But man is principally composed of compressed oxygen, 44 kilograms, which at ordinary temperatures would occupy a space of 30 cubic metres. The quantity of hydrogen is less, 7 kilograms, which in a free state would occupy a space of 80 cubic metres, and the hydrogen of 12 men would fill a balloon capable of carrying 3 or 4 persons. The amount of nitrogen is 1 kilogram and 72 grams; Chlorine, 800 grams; fluorine, 100 grams. Of the solid elements of the body carbon is the most abundant, 22 kilograms. Besides this there are 800 grams of phosphorus and 100 grams of sulphur. There are no precious metals in man, but there are 1750 grams of calcium, 80 grams of potassium, 70 grams of sodium, 50 of magnesium and 50 of iron. Such is man.—*L'Esperimentale*.

THE IMMEDIATE CURE OF WHOOPING COUGH.—Dr. Mohn of Christiana communicates to his Norwegian confreres a new method of treatment for whooping cough, for which he claims remarkable results, the disease being cured in a single night. His plan consists simply in the thorough disinfection, by means of burning sulphur, of the rooms, clothing, etc., used by the affected children. The children are taken out of the room, the bedding, furniture and play-things are exposed and two ounces of sulphur are burned for every 100 cubic feet of space in the room. After the room has been thus exposed to the sulphurous acid fumes the affected children are allowed to return and occupy it. As a result of this treatment it is claimed that attacks of coughing are immediately alleviated, and often entirely disappear.—*Revue des Sc. Med.*

DR. B. C. WINDLE of Dublin, in a paper read before the British Dental Association on "Man's Lost Incisors," reaches the following conclusions:

1. Man's original dentition included six incisors.
 2. Man's lost incisor in the lateral I_{n3} .
 3. This loss is consequent upon the contraction of the anterior part of the jaw.
 4. Suppression of the two present lateral incisors is now taking place.
 5. Conical teeth are a reversion to the primitive type.
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HENNIG and Rauber report in *Virchow's Archives* the case of a young dairy maid who gave birth to a child with a tail. This caudal appendage was 27 m. m. ($1\frac{1}{2}$ inch) in length, contained two vertebræ and had hairs on its extremity. The authors emphasize the importance of moral impression from association with cows in this case.

ST. LOUIS has been lately blessed by the arrival of a Chinese doctor, who offers to break his own arm if another surgeon will do the same, and then prove the superiority of his treatment over that of the other.—*Medical Review.*

PROF. F. MAGNI, the distinguished Italian ophthalmologist, died Feb. 2, 1887.

THE following physicians were appointed at Feb. 8th meeting of the French Academy of Medicine to represent that body in the International Medical Congress, to be held in Washington, Trelat, Verneuil, LeFort, Charpentier, Leon Laffe, Valin and Dujardin-Beaumetz.

During the month of November there were 342 deaths from Cholera Asiatica in Buenos Ayres and 145 deaths from cholera morbus. The population of Buenos Ayres is 400,000.

WILLARD ASYLUM for the chronic insane has established a training school for nurses, following the example of the Buffalo State Asylum, which established the first school of that sort in America.

BOCKELMANN has recently published an article showing that opacity of the cornea in new-born infants is often due to the contact of decomposing amniotic fluid with the eye.

Selections.

A NEW THEORY OF MENSTRUATION.

In the "Presidential Address on Some Pending Questions in Gynæcology," delivered before the British Gynæcological Society (*British Medical Journal*, Jan. 22, 1887,) on January 12th, Mr. Lawson Tait calls attention to the subject of menstruation and refers to two papers read before the Society during the past year on this subject, in which a new theory of menstruation is presented by two different observers working upon different materials, in different ways, and approaching their subject from altogether different standpoints, and without the faintest kind of association, yet each arriving at conclusions absolutely identical. The authors of these two papers are Mr. Bland Sutton, of Liverpool, and Dr. Arthur Johnstone, of Danville, Ky.

It is well known that new theories of menstruation have been attributed to Mr. Tait, but Mr. Tait affirms that all he pleads for is a

wholesome skepticism. He does not hold to the opinion that ovulation and menstruation stand as cause and effect.

The conclusion reached by Mr. Bland Sutton is that Macaque monkeys and baboons suffer a periodical loss of blood from the uterus. Unlike the human female, in them there is no shedding of the epithelial lining of the mucous membrane of the uterus and utricular glands. The amount of blood which escapes is very small in quantity.

Dr. Johnstone's paper, of which Mr. Tait says, "I am specially proud of it, because he is a typical example of the splendid race which the implantation of Britons on a new soil has produced, and I have had the privilege of ranking him among my pupils," is equally conclusive.

Dr. Johnstone advances the theory that menstruation is the result of a glandular function, and he shows that the menstrual organ is the endometrium. According to Dr. Johnstone's observations, a section of the uterus in a girl eleven years of age shows a mere coating of the columnar epithelium, without corpuscular development. A section of the endometrium of a girl aged thirteen, who had menstruated twice, shows more elaborately developed columnar epithelium, and the beginning of a corpuscular layer. The menstruating uterus of a woman of twenty shows abundant corpuscular development, constituting a thick endometrium, with its endometrium in process of casting, whilst a senile uterus at sixty shows merely the skeleton of the endometric structure, with almost complete exhaustion of its corpuscular elements and a total absence of epithelium. Both Mr. Sutton and Dr. Johnstone agree that in menstruation the epithelium of the tubes is not shed.

Mr. Tait argues that from these facts we have the explanation of a long series of most intricate physiological and pathological difficulties, the riddles of which seemed to be wholly beyond our grasp. "First," he says, "we have an explanation of the familiar fact that impregnation and menstruation seem to have a clear relation as to coincidence, the plain fact being that an impregnated ovum adheres only to a surface denuded of epithelium. When desquamative salpingitis has destroyed the tubal epithelium, the ovum may be impregnated in the tube, and may adhere to the exposed tissue and the dreadful issue of tubal pregnancy will result."

Mr. Tait claims that ovulation is going on constantly, long antecedent to puberty, and, in old age, long after the climacteric. "For pregnancy not only an ovum is required, but it is necessary that the ovum when fertilized should pass over the endometrium when it is denuded of its epithelium, and in a condition of turgescence fit for the subsequent process. But for one ovum thus secured there are probably scores or hundreds which persist, either dropping into the peritoneal cavity or passing out through the uterus. The menstrual process is necessary, or, at least, such parts of it as involve the preparation of the endometrium are necessary for impregnation, but menstruation has nothing to do with ovulation further than being a means to the end of gestation."

Many curious clinical experiences and pathological facts, Mr. Tait argues, are explained by these views. Chronic endometritis, which involves sterility in a large number of cases, is cited. The curette cures the disease and removes the obstruction.

"The condition of infantile uterus means absolute sterility by reason of the arrest in development of the glandular tissue." Mr. Tait further argues that "The singular discrepancy between the uterus and ovaries in their pathological tendencies is due to two facts: the first discovered by Ritchie, that from infancy to death the glandular function of the ovary is never quite at rest, so that ovarian tumors are met with at all ages; the second, displayed for the first time by Johnstone, that the truly glandular function of the uterus begins with puberty and ends with the climacteric, therefore we have myoma practically limited—indeed, in origin the limitation is absolute—to the time between these two incidents of woman's life."

Dr. Johnstone claims in support of his theory that the endometrium above the internal os is not a mucous membrane, but belongs to the so-called adenoid tissues, and that menstruation is for it exactly what the lymph stream is to the lymph gland, or the blood-current to the spleen.

The explanation for the occurrence of this phenomenon in women only, and in some of the higher apes in a partial way, is thus explained: "In two of the ruminants I have shown that nature has supplied this tissue with an abundant lymph-stream, which in the unimpregnated state washes away the ripe material to the general circulation exactly as it does any other lymph corpuscle. But in

woman, where, on account of its erect position, the uterus has to depend on the tonicity of its own fibres for the preservation of its shape, no such thing as loose tissue of the lymphatic net-work can be depended on. So, to preserve the integrity of the uterine wall, the emulgent stream is poured into the cavity of the body and got rid of by the vagina."

Dr. Johnstone claims that the sow does not menstruate for the same reason that a child does not. The corpuscles are so slightly developed that they do not need rapid removal.

The theory here advanced is extremely plausible, and, so far as proof has been offered, rests upon well-observed facts. According to this view of the phenomenon of menstruation, the function has been determined by the upright position.—*Maryland Medical Journal*.

INCOMPATIBLE PRESCRIPTIONS.

The following examples of untoward results following the combination of familiar prescriptions are given in the *Deutsch-Amerikanische Apotheker-Zeitung* for January 15, 1887, as original with Ch. T. P. Fennel in the "Principles of Pharmacy." While these incompatibilities may be well known, yet their repetition as a reminder will not be devoid of interest.

A common and dangerous action is that resulting from the mixture of alkaloids with alkalies or alkaline salts, of which the following is an example:

℞	Strychninæ sulphat.,	-	-	-	gr. ss.
	Elixir. brom. chloral,	-	-	-	℥ viii. M.

Sig.—A teaspoonful morning and evening.

The result of this mixture is a colorless solution, from which is deposited in a few hours a crystalline precipitate, which is the greater portion of the strychnine ordered. Although the elixir is not officinal, it is frequently prescribed, and its potassium bromide will deposit the strychnine as an insoluble bromide. The last dose taken, unless great care to shake the mixture well was observed, would result disastrously.

The following prescription may also result badly :

℞	Morphin. sulphat.,	-	-	-	gr. ii.
	Liq. ammon. acet.,	-	-	-	f ℥ ss.
	Aqu. destillat.,				
	Syr. simpl.,	-	-	-	āā f ℥ ii. M.

Sig.—Teaspoonful doses as ordered.

When the diluted acetic acid has been neutralized, and an excess, although not great, of ammonium carbonate is present, the precipitation of the alkaloid will result as in the first instance.

The following may also prove incompatible :

R̄	Potass. iodid.,	-	-	-	-	3 i.	
	Spts. æther. nitros.,						
	Aquæ,	-	-	-	-	aa 3 i.	M.

When the spiritus ætheris nitrosi is not free from nitric and acetic acids, (a result which is produced by the action of the air,) iodine will be set free, and a colored solution take the place of a colorless one.

A familiar example of decomposition occurring in the organism when chemical substances are given, is found in the simultaneous use of calomel and potassium iodide, as follows:

R̄	Hydrarg. chlor. mit.,	-	-	-	-	gr. iv.	
	Sacchar. lactis,	-	-	-	-	gr. x.	M.
	F. pulv. No. 10.						
	Sig.—A powder three times daily.						

Also

R̄	Potass. iodid.,	-	-	-	-	3 i.	
	Aqu. destillat.,	-	-	-	-	3 iv.	M.
	Sig.—Teaspoonful every three hours.						

A re-action between the calomel and potassium iodide occurs in the stomach, and bad results, through the irritating mercurial formed, may occur.

An explosion or unfortunate formation of gas may result from this prescription :

R̄	Ammon. carbonat.,	-	-	-	-	᠐ ii.	
	Syrup. scillæ,	-	-	-	-	f 3 i.	
	Syrup. senegæ,	-	-	-	-	3 i.	M.

The acetic acid in the syrup of squill has been overlooked in this combination ; its union with the ammonium salt would result unfortunately through the liberation of carbonic acid gas.

In those cases where ingredients are ordered which even in a measure tend to produce insoluble compounds, the ingredients should be diluted as much as possible, that the resulting coagulum or compound may be easily dissipated by shaking. This is illustrated by the prescription :

℞	Liq. ferri chlorid.,	-	-	-	3 iss.
	Muc. gum. arab.,	-	-	-	f 3 i.
	Aqu. destillat.,	-	-	-	f 3 iv.,

in which the iron and mucilage should both be diluted before mixing.

The same caution obtains when tannin or liquiritia is combined with metallic or alkaloidal salts.

℞	Extr. hyoscyami aq.,	-	-	-	3 ss.
	Tinct. valerian.,	-	-	:	3 iii.
	Spir. ætheris nitrosi,	-	-	-	3 vi. M.

In the above, the extract is to be diluted before mixing with the spiritus ætheris nitrosi.

The prescription,

℞	Tinct. iodin.,	-	-	-	3 i.,
	Aquæ,	-	-	-	3 i. M.,

will result in the separation of free iodine; to prevent this, potassium iodide should be added.

The prescription,

℞	Potass. chlorat.,	-	-	-	⊕ i.,
	Acid. hydrochlor.,	-	-	-	3 ii.,
	Aq. destillat.,	-	-	-	3 x. M.,

results in different ways. If the potassium chlorate is immediately added to the acid, and then water mingled with the resulting fluid, chlorine gas is formed in solution. If the potassium chlorate is first dissolved in water, and then the acid is added, free chloric acid results.—*Therapeutic Gazette*.

THE PROPOSED NEW MEDICAL DEGREE FOR LONDON STUDENTS.

The new year finds the scheme for providing an attainable degree for London medical students much more nearly within the range of practical politics than it was twelve months ago. Since then, delegates from the College of Physicians and the College of Surgeons have held innumerable sittings, and presented a report, the most important part of which has now been accepted by both the colleges. The latest transaction in regard to it took place at a meeting of the College of

Physicians in December, when the report of the delegates was under discussion. It is quite possible that the report might have been rejected had it not been for the eloquent speech of Sir Henry Pitman, who smoothed away all objections with singular ability. The great argument of the objectors has always been that colleges cannot give degrees, that being the function of a university; and, therefore, they say, let a university be formed in the management of which the two colleges may have a share. But Sir Henry Pitman first told us that the University of Edinburgh existed as a college for a hundred years before becoming a university, and then gave, perhaps, even a better instance in the recent foundation in London of a Royal College of Music, which has the power to grant degrees in music; it is, therefore, clear that the university-theory objection can no longer be sustained. Another objection that was frequently raised was that the identity and existence of the College of Physicians would be merged in this new body; but those who urged this forgot that the combination of the two colleges had already taken place as far as is necessary, without in any way producing detriment to the individuality of either of them. The meeting ended with a practically unanimous decision to join with the College of Surgeons in presenting a petition to the Privy Council asking for power to confer a degree. What the exact terms are upon which this degree should be given, have yet to be settled; but the only point upon which there is likely to be any difference of opinion is as to whether it should be a *sine qua non* that the student shall have studied at one of the metropolitan schools of medicine. It appears to me that it should be, and for this simple reason—viz., that one of the chief reasons, if not the very foremost reason, for demanding a degree in London is the immense opportunity for clinical study which the metropolis affords, and to give this new degree to men who have not availed themselves of those opportunities would make it appear that the efficient training of the student was not an all-important point. It seems possible that the College of Physicians may differ with the College of Surgeons on this point, as it is rumored that the latter does not wish to insist upon any part of the study being of necessity carried out in London; but I hope it will be brought to see the error of its way, as I know that by many at the College of Physicians the matter will be regarded and treated as a vital one.—*N. Y. Medical Journal.*

THE PATHOLOGY AND TREATMENT OF EPILEPSY.

At a recent meeting of the New York Academy of Medicine, Professor Wm. H. Thomson, of the University Medical School, read a paper on the "Pathology and Treatment of Epilepsy," based on notes of sixty consecutive cases in practice, in which he advanced some rather unusual views, among which was the opinion that all convulsive seizures of an epileptiform character, whether due to a temporary peripheral irritation or not, as convulsions from dentition, for example, really belong to true epilepsy.

Dr. Thomson regards *suddenness* as the invariable and essential element in epilepsy: it is the single truly sudden disease, the only affections resembling it in this particular being laryngismus stridulus and spasmodic asthma, though in these the suddenness is found not to be absolute as in epilepsy. Apoplexy, hemiplegia, sunstroke, etc., being accidents, cannot be strictly compared with epilepsy: nor are hysterical and neuralgic attacks so sudden as those of epilepsy. Furthermore, Dr. Thomson regards *petit mal* as the most real form of the disease. In regard to the cell discharge or explosion theory, the views of Hughlings-Jackson, and Nothnagel's "convulsive centre," he thinks that if no other form of epilepsy than *petit mal* had ever been observed, the explosion theory would never have been proposed. With Jackson and Gowers he is willing to grant that there is a motor discharge in every convulsive seizure; but that it is a different matter to say that an attack of epilepsy is a motor discharge. He believes all motor phenomena except the voluntary to be under the control of sensory impulse, and a sudden suspension of the regulating sensory impression may result from a variety of causes. Any irregular motor phenomena are, therefore, due to a loss of the customary sensory influence; and this, he thinks, explains the clinical facts of epilepsy without the necessity of supposing any additional nervous force being called into action.

He considers the phenomena of epilepsy to be the effect of an afferent sensory impression when some abnormal condition of the nerve centres is present. What this condition may be he is not prepared to say, but it seems most probable to him that it is one of malnutrition. If asked if he would assert that all cases of epilepsy are attended with sensory impressions in the face of the well-known fact that in certain instances there are definite lesions of the brain present.

he would reply that we do not get rid of the sensory element when we enter the cranial cavity. A syphilitic gumma of the brain may be as truly an excitant of sensory irritability as an external impression. He does not hesitate to acknowledge that a motor centre may be excited by the application of an electric current after trephining the skull; but the explanation of the phenomena noted he believes to be found in the fact of a wholly unaccustomed irritation in a centre habituated to act in response to sensory impressions. The hypothesis of a sudden suspension of the ordinary suspensory functions, he thinks, fully accounts for all the phenomena observed in epilepsy.

As regards his treatment of epilepsy, Dr. Thomson says that of late years, since he has based his therapeutic measures on the hypothesis that the lesion of epilepsy is to be found in the sensory, rather than the motor, centres, he has grown much less skeptical of the advantages of treatment in this disease than formerly. The first thing to be aimed at is the improvement of nerve-nutrition; and by far the best agent for this purpose is cod-liver oil, which he prescribes as regularly in epilepsy as in phthisis. Phosphorus is also a useful remedy in this connection. Like the great mass of physicians, he has found the bromides the best agents for controlling peripheric irritation, and he has found cod-liver oil of very good service in counteracting their debilitating effects. When there is persistent cortical irritation, as indicated by muscular twitchings during sleep, he employs, with happy results, the bichloride of mercury, or the oleate by inunction. He uses belladonna or oxide of zinc in all cases in which the attacks show any connection with disturbances in the alimentary canal, and when there is reflex irritability, he uses chloral hydrate or Hoffman's anodyne, in addition to the bromides. Digitalis he uses in all cases characterized by vascular disturbance, or where there is involuntary discharge of urine during the attack. He is also in the habit of using, in a certain proportion of cases, a red pepper pack at night; one drachm of capsicum being used to the pint of hot water for this purpose. In one case, a patient who ordinarily had two epileptic attacks a day did not have a single one for seven weeks after this measure was resorted to; the disease being completely arrested by the peripheral excitation thus secured. In his opinion, an important part of the treatment is the total exclusion of all butcher meat for a period of two years: though poultry and fish are permissible. Animal diet, he

believes, predisposes to convulsions in direct proportion to the quantity in which it is used. The tendency to convulsions in the carnivoræ, and the absence of this in herbivorous animals, are apparently due to the respective diet in each class. Another thing to be avoided is eating fast, as the too rapid mastication and swallowing of food seems to act directly on the convulsive centre of the medulla oblongata. It is possible that the habit of eating too fast may thus induce confirmed epilepsy. These points show, he thinks, the direction in which efforts should be made by which better results may be expected in the future, and the treatment thus be relieved of the grievous burden of suspicion which it has borne so long.

It could scarcely be supposed that such views as to the pathology of epilepsy could be expressed before the Academy without discussion. It may be questioned, as Dr. Putzel remarked, whether anything can be considered epilepsy unless the convulsive habit is established. But we cannot so certainly draw a line of demarkation between infantile convulsions and true epilepsy, as Dr. Putzel seems to think, as clinical experience shows that the tendency to convulsions in children is closely associated with the epileptic diathesis, and that accidental convulsions are often the beginning of lifelong epilepsy; and we also know that many cases of epilepsy give a history of convulsions in childhood. But a consideration of the pathology of epilepsy, and epileptiform convulsions, would carry us beyond the limits of this article.

With one exception, it seems that Dr. Thomson's views as to the treatment of epilepsy were generally endorsed. Dr. Wm. H. Draper, however, did not agree as to the danger of animal food; on the contrary, he is inclined to think that the origination of an attack is more likely to follow the ingestion of starchy foods, and he prefers that his patients should use animal food and milk, and a diminished quantity of the carbohydrates: and from this he has had very good results.

At the same meeting of the Academy, Dr. A. D. Rockwell read a paper on "The Value of Electricity in the Treatment of Epilepsy," in which, among others, he drew the following conclusions:

Electricity possesses a certain value in the treatment of epilepsy.

It is not claimed that it can alone cure the disease, but in many instances it is of great service as an adjuvant to the bromides.

In the nocturnal variety, its good effects are especially marked.

The methods of application to be used are central galvanization and general faradization.

It is important that the agent should be administered with great care. Anything like a shock should be avoided, and the applications should not be continued too long at a time.

The treatment should be kept up, with suitable intermissions, for two years after all epileptic symptoms have disappeared.—*Journal of American Med. Asso.*

DANGERS OF SANTONIN.

Dr. Laure, at a recent meeting of the Lyons Medical Society, related an interesting case of santonin-poisoning. On December 25th last, he was called to visit a child three and a-half years old. The parents attributed the evident intoxication to some black lead which the child had daubed over his lips. As black lead, notwithstanding its name, consists of nearly pure carbon and contains no lead, the case was somewhat obscure. The patient was lying on his back, in a state of deep prostration, now and then interrupted by sharp cries. The child then would bend up its knees and place its hands on its abdomen, apparently the seat of the pain. This fit over, he would fall again into the former somnolence. The face was of a livid paleness, the pupils dilated, breathing frequent, the pulse rapid and irregular, while the rectal temperature remained below 37° C. (98.6° F.) The stomach would immediately reject anything ingested.

Matters passed by the patient after the administration of a purgative enema, advised by the family pharmacist, showed nothing abnormal, excepting the deepened coloration of the liquid portions, and this was at first attributed to the drugs themselves from which the enema was composed.

On the whole, the symptoms were very perplexing, when the mother, on being interrogated again, remembered that *two days before* she had given the child a dose of ten centigrammes (1½ grains) of santonin. She even had a second powder like it, but, fortunately, did not administer it. It appeared, also, that the day before calling in the physician, the child had passed what the parents thought to be bloody urine. This color, Dr. Laure thinks, was simply due to santonin, as Wood states it to be the case finally.

Perhaps the worst symptom was the complete retention of urine,

none having been passed within twenty-four hours. But once the case was clearly understood, the treatment was easy and the recovery rapid. A warm bath and a laxative enema restored the flow of urine, and a copious passage relieved the abdominal tympanitis. In a few days, the patient was well again.

This custom of dosing children with santonin seems to be a common one with the French working classes. As soon as the little ones have the slightest diarrhoea caused by teething, some parents conclude they have worms, and give them the medicine without any medical advice. Besides, they administer it simply powdered, without adjuvants or correctives.

As regards the use of santonin, Dr. Laure thinks the rule laid down by Benzinger, viz., as many grains as the child has years, four days in succession, is one that should be regarded with suspicion. He prefers Wood's advice — not to exceed one grain for a child less than two years.* Dr. Laure is also of opinion that it is very desirable to combine santonin with a purgative; calomel, for instance. As to the antidotes of santonin, ether and especially chloral have been recommended as the best by Becker and Binz. In a case when convulsions or nervous troubles occur, they would have been used willingly. But in the case just narrated, it was thought more advisable to facilitate the elimination of the poison by the kidneys and bowels, and afterwards to administer tonics.—*Paris Letter to Therapeutic Gazette.*

SUCCESSFUL TRANSPLANTATION OF FROG SKIN UPON A GRANULATING WOUND ON THE FOOT.

Dubousquet-Labordeni publishes in the *Gazette des Hôpitaux* the following clinical report: A young man twenty years of age received a severe burn of the foot from contact with molten iron. When the eschars were removed, the wound granulated nicely but showed no signs of cicatrization. On the dorsum of the foot the denuded surface extended backward from the little toe nine centimetres, and was four centimetres wide. On the plantar surface the skin was destroyed from the great toe backward eleven centimetres, and was six centimetres wide.

* It must be borne in mind that when modern French writers use the term "grain," which, fortunately, they seldom do, they mean five centigrammes, while the English grain is equal to about six and one-half centigrammes.

In order to compare grafts of human skin with those taken from the frog, four grafts were taken from the patient and placed upon the dorsal wound and four pieces of frog skin the size of the thumb nail were placed upon the plantar wound. Twenty-four hours afterward the dressing was removed and one of the grafts on each surface was detached, but the other six adhered to the wound. For six days the frog skin grafts retained their color and then began to lose their pigment and assume the appearance of human skin. In three weeks, the plantar wound was diminished in size by a fourth; the dorsal wound had made less progress. In a month, the plantar wound was completely healed but the dorsal wound was still open. The cicatrix of the plantar wound was soft and pliable; that of the dorsal wound was harder, thicker and somewhat painful.

The author recommends the adoption of the following precautions in skin grafting: The wound should be well granulated, avoid all flow of blood and suppuration by the use of antiseptic dressings, maintain complete immobility of the parts for at least twenty-four hours after the operation.

The following is his method of operation: The wound is washed with a carbolized solution and thoroughly dried with absorbent cotton. Small pieces of frog skin previously dipped two or three times in a weak solution of carbolic acid are then rapidly placed upon the granulations. Pieces of blotting paper smaller than the grafts are placed upon the pieces of frog skin in order to obtain compression and absorb moisture, and over this use the ordinary Lister dressing.

SECONDARY INFLAMMATION OF THE PAROTID GLAND.—As secondary inflammation of the parotid gland is thought generally to portend evil to the patient who has it develop subsequent to injuries and operation wounds, the following may prove of solace:

Mr. Stephen Paget reports sixty cases in the London *Lancet*, in all of which the primary lesion was in the abdomen or pelvis. Most of the patients recovered. In many there were no signs of septicæmia or pyæmia. The author draws the following conclusions:

1. That the parotid gland is related to the peritoneum.
2. That it is also related to the generative organs.
3. That an abdominal or pelvic lesion may be followed by parotitis without pyæmia.

4. That such a parotitis, if it occur later and with healthy kidneys, is usually followed by nursing.

Among these the parotitis followed—

1. The use of a catheter or sound in four instances.
2. Several cases followed labor, or induced abortion.
3. Several cases were from peritonitis, from injury or perforation.
4. Some followed operations, such as gastrotomy, operations on the cervix uteri, and especially ovariectomy. Following the latter they are not unusual.

5. Following pelvic cellulitis and abscess. In one case reported, the woman had parotitis in six successive pregnancies, and one patient with amenorrhœa had a parotitis at each menstrual period.

GOITRES AND INTERSTITIAL MEDICATION WITH IODINE.—Dr. Dugent, in a paper in the *Proces Agrege à la faculté Med. de l'Hop. Lariboisière*, Paris, Dec., 1886, concludes that extirpation of the thyroid being followed with such great sequelæ (myxœdema), the treatment should be limited to injections with tincture of iodine, especially as partial extirpation does not forbid a recurrence. The author cites the cure of twenty-one cases out of thirty four treated by him with iodine injections: of the other thirteen, seven cases were ameliorated, the remainder were incomplete. It is not the character of the goitre, cystic, parenchymatous, etc., but the age of the tumors, which will influence the result of the treatment. Old goitres will remain refractory. Tincture of iodine acts, first, by the irritant action of the alcohol, and, second, by the specific action of the iodine. Dr. Dugent has made 266 injections without accident.—*Journal of Laryngology and Rhinology*.

COCAINE IN THE INCOERCIBLE VOMITINGS OF PREGNANCY.—Cocaine has lately come into use for the incoercible vomitings of pregnancy, and in several cases reported by Weiss, Englemann, Holtz and Bois, it seems to have given good results. Weiss prescribes a teaspoonful every half hour of a solution containing fifteen centigrammes of hydrochlorate of cocaine in one hundred and fifty grammes of water. Englemann and Holtz use a three per cent. solution in ten to thirty drop doses, while Bois applies to the neck of the uterus, night and morning, a pomatum in which one centigramme of cocaine is incorporated with fifty grammes of vaseline. Fraipont

prefers the hypodermic method, injecting under the skin a Pravaz syringe full of a four per cent. solution, and claims signal success in other forms of obstinate vomiting as well as in the vomitings of pregnancy.—*Boston Med. and Surg. Jour.*

A GOOD way to give turpentine is in the following emulsion, published in *The Doctor*:

Oil of turpentine,	-	-	-	2 ounces.
White of egg,	-	-	-	2 "
Glycerine,	-	-	-	4 "
Syrup,	-	-	-	4 "
Water,	-	-	-	4 "

Mix the white of egg and glycerine together, add the oil of turpentine and shake thoroughly; then add the syrup and, lastly, the water, shaking them well together. This makes a nice emulsion, and is easily made and as permanent as any turpentine emulsion. A teaspoonful dose will contain about eight minims of turpentine.

A NORWEGIAN doctor, H. J. Vetlesen, of Hamar, gives some hundred and sixteen cases of whooping-cough, in which he obtained favorable results in over seventy-one per cent. of the cases, and entire cures in twenty-five per cent., with the use of the following mixture:

℞ Ext. cannabis indicæ,	-	-	-	1 gramme.
Ext. belladonnæ,	-	-	-	50 centigrammes.
Alcoholis, (90°),	-	-	-	5 grammes.
Glycerini,	-	-	-	5 grammes. M.

S. Give four to twenty drops morning and evening, according to the age of the child. Dr. Vetlesen tried the extracts separately, but could not obtain the same results as when they were combined as above.—*Phila. Med. Times.*

NASAL POLYPI.—Dr. William R. Bell, *Canada Medical Record*, describes a new, painless and simple method of removing nasal polypi. His patient is instructed to blow strongly through the affected nostril while he closes the other with his fingers. This brings the polypus down so that it can be seen. He then injects into the tumor, with a hypodermic syringe, fifteen or twenty minims of a solution of tannin in water (twenty grains to a fluid drachm). In a few days the tumor shrivels, dries up and comes away without trouble or pain, the patient usually removing it with his fingers or by blowing his nose.

Editorial.

THE ANNUAL COMMENCEMENT OF THE BUFFALO MEDICAL COLLEGE.

The commencement exercises of the college took place this year on March 1st. The first part of the day was occupied by the meeting of the alumni as is usual. About forty of the alumni responded to the call of their executive committee; eight from neighboring towns, the rest from this city. They assembled at the college at 11 A. M. The president, Dr. Conrad Diehl, called the meeting to order, and in a few well-chosen words introduced the order of business. Prof. Pohlman of the faculty delivered the address of welcome. It was not up to the usual standard of the doctor's contributions.

In the afternoon, papers were read by Dr. Roswell Park, Dr. M. D. Mann, Dr. John H. Pryor and Dr. Wende. There was a somewhat increased attendance, and the papers were well received. The following officers were elected:

President, Henry Lapp, Clarence; *Vice-President*, D. W. Harrington, Buffalo; *Second Vice-President*, C. S. Pugsley, Oakfield; *Third Vice-President*, C. A. Ring, Buffalo; *Fourth Vice-President*, A. G. Ellenwood, Attica; *Fifth Vice-President*, Miss Bianca Potter, Buffalo; *Permanent Secretary*, J. J. Walsh, Buffalo; *Recording Secretary*, W. H. Thornton, Buffalo; *Treasurer*, E. C. W. O'Brien, Buffalo; *Trustees*, Henry Lapp, Clarence; P. W. Van Peyma, Buffalo; E. C. W. O'Brien, Buffalo; C. Diehl, Buffalo; H. Hoyt, East Aurora; *Executive Committee*, F. P. Vandenberg, J. H. Pryor, H. H. Bingham, Buffalo; ex-officio, Prof. Chas. Cary, C. H. Lapp; *Committee on Nominations*, Dr. E. C. W. O'Brien, James S. Porter, B. G. Long, F. E. L. Brecht, F. O. Vaughn.

The council held a meeting in the afternoon. The committee appointed to establish a law school reported that while this was a favorable point for such a school, they had been unable to secure the men necessary to conduct it. The following degrees were conferred. Degree of M. D. on—

William W. Ruby, Rochester, N. Y. ; Elizabeth Johnson, Montreal, Canada ; Brayton Nelson Strong, Colden, N. Y. ; William C. L. Meisburger, Buffalo, N. Y. ; James C. Earle, Belfast, N. Y. ; Earl A. Schofield, Gerry, N. Y. ; Harvey E. Brown, Fayette, N. Y. ; Charles Davis Johnson, Hartstown, Pa. ; Edward Meany, Jacksonville, N. Y. ; William Harry Bergtold, Buffalo, N. Y. ; Frederick Hill Stanbro, Springville, N. Y. ; William Henry Olmsted, Elmira, N. Y. ; Bernard Cohen, Buffalo, N. Y. ; George Mark Harrison, Dunkirk, N. Y. ; William Holden Chace, A. B., Mayville, N. Y. ; Clark Francis Bruso, Buffalo, N. Y. ; Thomas Ed. Soules, Ph. G., Cherry Creek, N. Y. ; Fridoin Thoma, Buffalo, N. Y. ; Arthur Wm. Hubbard, Punxsutawney, Pa. ; Stella Cox Venable, Geneseo, N. Y. ; Alexander McNamara, Corning, N. Y. ; La Rue R. Colgrove, Ph. G., Elmira, N. Y. ; Jacob W. E. K. Davis, Easton, Pa. ; Franklin Ayer Trippett, Williamsville, N. Y. ; David H. Webster, New Buro, Canada ; Clarence Victor Gray, Hulberton, N. Y. ; Clifton George Smith, Carlton, N. Y. ; Frank Wesley Huff, Penn Yan, N. Y. ; Burg Chadwick, Smethport, Pa. ; Charles W. Davis, Randolph, N. Y. ; Andrew J. Martin, Clarence Centre, N. Y. ; William H. Mansperger, Buffalo, N. Y. ; George W. Roos, Buffalo, N. Y. ; Marshall C. Butler, Little Valley, N. Y. ; Mark Alward, Petitcodiac, Canada ; Edward H. Wells, Geneva, N. Y. ; Jasper D. Wooster, Buffalo, N. Y. ; George Stephen Skiff, Pike, N. Y. ; Joseph W. Magill, Pittsford, N. Y. ; Alfred Day, Rochester, N. Y. ; Jeremiah J. Sullivan, Batavia, N. Y. ; Adolph A. Auger, Roxton Pond, Canada ; George H. Sisson, Buffalo, N. Y. ; Philo L. Alden, Pultney, N. Y. ; Guy Bradford Crandall, Randolph, N. Y. ; Peter Guinan, Mendon, N. Y. ; Grosvenor Reuben Trowbridge, A. B., Buffalo, N. Y. ; William Russel Palmer, Port Allegheny, Pa. ; Eugene A. Smith, Buffalo, N. Y. ; William W. Skinner, Prattsburgh, N. Y.

The degree of Bachelor of Science on Dr. F. P. Vandenberg, assistant professor of pharmaceutical chemistry ; degree of Ph. G. on Willis G. Gregory. Curators of the college, Dr. B. H. Putnam, of North East ; W. E. Landerdale, of Geneseo, and Dr. S. C. Pugsley, of Oakfield ; and C. H. Haskins, of Rochester, and J. P. Diehl, of Buffalo, curators of college of pharmacy in place of G. H. Haas, resigned, and J. Rieffenstahl, deceased.

THE COMMENCEMENT.

The graduating exercises took place in the evening at Liedertafel Hall, with a large attendance. The degrees were conferred as above by the chancellor. Honorable mention was made of the graduates, and their standing in the class announced as follows:

Eugene A. Smith, George M. Harrison, William H. Chace, William W. Skinner, La Rue C. Colegrove, William W. Ruby, Edward Meany, James C. Earle, Clark F. Bruso, Stella Cox Venable.

The following theses were considered worthy of honorable mention: "The Third State of Anæsthesia," by Eugene A. Smith. "A Comparative Test of Pepsin Preparations," by Miss Elizabeth Johnson. "Quantitative Analysis of Urine in the Diagnosis of Malignant Tumors," by Jasper D. Wooster.

The address to the graduating class was delivered by Prof. J. M. Cassety, principal of the Normal School, and was eloquent and interesting. The responsibilities of the medical profession were shown at length: first, in its relation to science; second to law; third, to humanity. The sacred duties of the physician in the family and in the presence of death were fittingly and forcibly described.

The address to the alumni was delivered by Dr. P. M. Wise, superintendent of the Willard Insane Asylum.

*THE ANNUAL COMMENCEMENT OF THE MEDICAL
DEPARTMENT OF NIAGARA UNIVERSITY.*

The annual commencement of the college will take place April 12, 1887. The annual meeting of the alumni will also be held on the same day. No pains have been spared to make the occasion a pleasant and profitable one to those who attend. The school, as has been announced, is in a most flourishing condition, there being a good class in attendance. Considering the high standard of requirements, it is certainly marvelous that this institution has succeeded so well. It is learned that about one-tenth of the class will be candidates for graduation; that two

of those who have presented themselves for graduation have attended four full courses of lectures; that several now in the school will take four years by choice. Too much cannot be said in praise of such a course on the part of the teachers and students of this institution. The profession generally sustain this college, and will continue so to do.

The exercises, a programme of which has been sent us, will take place April 12, beginning at 11 A.M. Morning session of the Alumni Association will be held at this hour at the college building, on Ellicott street, near Broadway, at which time Dr. William H. Heath, president of the association, will deliver an address, followed by the regular order of business and the election of officers for the ensuing year. The afternoon session will be held at the college building at 3 P. M. Dr. Simeon T. Clark, of Lockport, professor of medical jurisprudence in the college, will give the address of welcome. Dr. Floyd S. Crego will read a paper on "Defective Mental Inhibition." Dr. Stephen Smith, of New York City, the celebrated author of the work on "Operative Surgery," and an eminent teacher, will read a paper on "The Influence of Antisepsis in Surgery on Human Longevity." Dr. Henry D. Ingraham will read a paper on "Intubation of the Larynx," and Dr. Frank H. Potter "Some General Rules Governing Operations in the Nasal Passages." In the evening, the commencement exercises will be held. The university rules follow the English method of conferring degrees. The candidates will be hooded and degrees conferred by the Chancellor. Rev. E. Dodge, D. D., LL. D., president of Madison University, will deliver the address of the evening. Prof. A. R. Davidson, of the faculty, will address the graduates. Following this, the annual banquet will be held, at which several toasts will be responded to, and music will be furnished by the College Glee Club.

The executive committee will issue invitations to the profession to be present at any or all of these meetings. They desire us also to extend, through these columns, a general invitation to all to be present, which we most heartily do. It is hoped by

the committee that many will avail themselves of the opportunity to meet Dr. Stephen Smith and attend the exercises in the evening. Physicians from out of town will be especially welcome. A large number have already signified their intention to be present. Comfortable apartments will be secured for those desiring them if they will send word a few days in advance to Dr. A. A. Hubbell, Buffalo, N. Y.

DR. EDWARD CLARK, demonstrator of anatomy in the Medical Department of Niagara University, leaves the city to spend a few months in New York City, for the special purpose of studying diseases of the rectum, under the instruction of Dr. Chas. B. Kelsey, who has acquired a large reputation in this specialty. We tender to our wide-awake and energetic friend our warmest approval for the effort he is putting forth in an important field of professional study. Few bring to this work such an aptitude and preparation upon which to build up a thorough scientific knowledge of a special class of diseases as Dr. Clark. He has filled a difficult position in the college with marked ability. As demonstrator and lecturer on anatomy, he has given the best guaranty of fitness by achieving a measure of success which few young men are permitted to secure, either by their natural ability or through their professional acquirements. We believe Dr. Clark has a bright future before him. His present purpose shows that he has the willingness to grasp at opportunities from which well-earned success will surely follow.

WE call attention to the advertisement of the Buffalo Maternity Hospital, among our advertising pages. This institution, organized in May, 1886, is under the professional charge of our editorial confrere, Dr. Lothrop, professor of obstetrics in the Medical Department of Niagara University, and his able assistant, Dr. C. C. Fredericks, associate editor of this JOURNAL. An able corps of medical men form the consulting staff. The names of the attending and consulting staff are a guaranty of the high character of the institution. The success of the hospital has

exceeded the expectations of its projectors, and it has already become one of the best in this State. That it supplies a want long felt, is assured by the measure of support it has received since its organization. We bespeak for it the endorsement of the profession, to whom we commend the hospital for its earnest efforts in behalf of a class of patients who require exceptional skill in their management, and the kindest and most considerate care for a successful puerperal convalescence.

WE congratulate the faculty of the *Buffalo Medical College* upon the large class graduated and on the fact that not a single graduation fee had to be returned. Of the entire class of fifty, not one failed to pass the examination for the doctorate. The alumni will rejoice at this evidence of the superior mental ability of the young men in attendance, in spite of the fact that all who present themselves are received as students without any inquiry as to preliminary education. We can hardly credit the report that the faculty were so gratified with the attainment of the members of the class, that it was proposed in addition to the M. D. to confer upon each of them the degree of M. A.; although a precedent for such action was established by conferring the degree of B. S. upon one of the teachers of the school. It is stated that the college, by the provisions of its charter, can grant any degree. If in the future the laws of the State should demand that candidates for the medical degree should possess a degree in arts, provision will doubtless be made to comply with the law.

We are glad to welcome the publication of the *Journal of Laryngology and Rhinology*. It is edited by Morell MacKenzie, M. D., and R. Norris Wolfenden, M. D., of London, and will furnish each month an analytical record of the current literature relating to the throat and nose. This will be invaluable for those engaged in the practice of the specialty. There are associated with the editors prominent specialists from each of the

principal countries of Europe, together with one each from Australia and America, who will furnish the current news for their respective countries. This country has a most fitting representative in Dr. John N. MacKenzie, of Baltimore. We bespeak for the *Journal* a large circulation.

THE American System of Gynecology, which for some time past has figured among the more important announcements of Messrs. Lea Brothers & Co., of Philadelphia, we are glad to learn, is well through the press, and may be expected shortly. Numbering among its contributors such prominent authorities as Professors Barker, Battey, Englemann, Garrigues, Goodell, Reeves Jackson, Lusk, Mundé, Reamy, Thomas, Van de Warker, etc., it will certainly present a thoroughly satisfactory and complete statement of the science in its most recent aspects, and we feel justified in congratulating the profession that what has been peculiarly an American specialty is about to receive from American hands the literary tribute due to it.

BUFFALO DENTAL COLLEGE.—Several eminent dentists in Buffalo have been granted permission by the trustees of the Niagara University to organize a College of Dental Surgery. A full notice will appear in the JOURNAL next month.

Reviews.

Diseases of the Blood and Nutrition, and Infectious Diseases; being Vol. IV. of "A Handbook of Practical Medicines." By DR. HERMANN EICHHORST, and Vol. XII. of Wood's Library for 1886. Illustrated. New York: William Wood & Co.

Diseases of the Lungs and Pleuræ, Including Consumption. By K. DOUGLAS POWELL, M. D., Lond., Fellow of the Royal College of Physicians; Physician to the Middlesex Hospital and to the Hospital for Consumption and Diseases of the Chest, at Brompton; late Assistant Physician and Lecturer on Materia Medica at the Charing Cross Hospital. Third edition, re-written and enlarged, with illustrations, including two lithographic plates; being Vol. XI. of Wood's Library for 1886. New York: William Wood & Co.

Rheumatism: Its Nature, its Pathology, and its Successful Treatment.
By T. J. MACLAGAN, M. D. Octavo, 285 pp., illustrated. Supplied only to subscribers for "Wood's Library of Standard Medical Authors," for 1886. New York: William Wood & Co.

Is there a doctor in the United States who has not heard of Wood's Library? If there is, we would like to inform him that for the small sum of \$15 he can get twelve volumes which will contain more valuable reading matter than he can obtain by three times the same expended in individual books. Eichorst's four volumes on "Practical Medicine," for instance, furnish upon the whole the best treatise on practical medicines now extant. Indeed, of the whole twelve volumes for the year 1886, we doubt if there is one which has not been gladly received and heartily appreciated by the subscribers. Certainly from ourselves they have received nothing but favorable mention during the year past. Wood's reputation ensures a continuance of the high quality and value of the library series, and we advise all our readers to send in their subscription for the present year.

A Text-Book of Medicine for Students and Practitioners. By ADOLF STRUMPELL, Professor and Director Medical Policlinic at the University of Leipsic. Translated from the third German edition, by Herman F. Vickery, A. B., M. D., and Philip C. Knapp, A. M., M. D. With Editorial Notes by Frederick C. Shattuck, A. M., M. D., physician to Massachusetts General Hospital and instructor in theory and practice, Harvard Medical School. With illustrations. New York: D. Appleton & Co., 1, 3 and 5 Bond street.

When a book bearing Appleton's imprint comes to us, we anticipate an enjoyment in the reading of it, and we are seldom disappointed, for their books are nearly always valuable. The present one is an exceptionally good book, and has been adopted as the text-book in the theory and practice of medicine at Harvard. In Germany, Strumpell's work has achieved a great success, having reached a third edition in a short time, and this admirable translation will, we predict, meet with equal favor here. Those chapters which treat of the diseases of the nervous system are models of full, concise and clear instruction. The same characteristics are seen in the other parts of the work, and either to the student or the physician the work is invaluable.



VOL. XXVI.

MAY, 1887.

No. 10.

Original Communications.

“*RELIGIO, MORES, CULTURA.*”

THE DOCTORATE ADDRESS IN THE MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY, 1887. BY A. R. DAVIDSON, M. D., PROF. OF MEDICAL CHEMISTRY AND DERMATOLOGY.

RT. REV. CHANCELLOR, LADIES AND GENTLEMEN :

In the olden time, and to-day in many of the Universities of Europe, while the candidate for the honor of the ordinary scholastic degrees is counted worthy if he fulfill the requirements of the college examination, he who aspires to wear the Hood of the Doctor, either in theology, medicine or law, is compelled to enter the lists with other doctors and in controversial battle prove himself worthy to be admitted to so high an honor and dignity.

Those who have this evening received the high degree of Doctor of Medicine, are victors in a similar contest. The guardian authorities of the University have not only satisfied themselves of their proficiency, but the candidates have passed through the ordeal of a meeting with many eminent physicians, other than their teachers, who have tested their knowledge, and, after a careful examination, have certified that they are worthy of admission to the ranks of the medical profession.

It is only justice to the members of the graduating class to remind the ladies and gentlemen who have honored us by their presence this evening, that there are many doors through which the young man may enter the profession. There are in the United States nearly one hundred and fifty institutions by which the degree of Doctor of Medicine is conferred, and these all fall into one of two classes.

First, the medical college, usually called a university, perhaps because in this growing country there is a possibility that at some future time it may develop into one, or, perchance, because the men connected with it hold themselves in readiness to teach medicine to any one in the universe, without any requirements other than two hundred dollars from each, strictly in advance. Being established on a purely business basis, they offer the degree upon easy terms, say eight or ten months' attendance upon lectures, together with, of course, the usual fees, and twenty-five dollars for graduation.

The more doctors are turned out, the more dollars are turned in—to the professors' pockets; therefore, examinations must be easy and no preliminary education is needed. The necessary dollars and a few months' nominal instruction only, are required to convert the ignoramus into the doctor.

I do not mean to say that the majority of this class of colleges are simply "Diploma Mills," but it is true that in most of them no effort is spared to have as many students and graduates as possible, regardless of quality, and so we see graduating classes of fifty to several hundred.

On the other hand, there are universities with their medical departments, where medicine is taught as one of the learned professions. The candidate for professional honors is met at the very commencement of his course with the question: Have you the education necessary to enable you to intelligently study medicine? and this must be answered either by the production of a scholastic degree or other certificate of proficiency before he can enter the portals of the college, for neither past experience nor present theory warrants the belief that plough-boys, ignorant

of the first rudiments of knowledge and untrained in the habits of study, can advantageously pursue the practice of medicine.

Then follows a long course of training in the college, the hospital, the laboratory and at the bedside, extending over at least three years and often four, and terminated by a rigorous examination, not only by his teachers, but also by independent physicians in active practice. He graduates, if he graduates at all, a well-trained and accomplished physician, worthy to wear the Hood of the Doctor of Medicine, and to assume the awful responsibility of the care of human life.

I can imagine this decision in your mind, "That is the kind of Doctor I should wish a son or brother of mine to be," but remember that it takes no little courage for the majority of young men to take the harder and exacting course. Indeed, the requirement of a proper preliminary examination would prevent, at least, half of the present students of medicine from making poor doctors of themselves.

The graduating classes of universities, which in their medical departments uphold a high standard of professional education, will always be small. The tendency will be continually to make fewer doctors and better ones. The graduates of such schools will deserve the honors which will surely come to them.

Gentlemen of the graduating class, I could, for the honor of the profession, wish that your number was larger; but I point to your fewness with pride, as an indication of the faithfulness with which Niagara University has upheld the ideas of reform in medical examination. Of a class of thirteen who entered with you upon the arduous path, four only have attained the honors of a degree from this university.

Gentlemen, your teachers admire the courage, determination, and industry which have animated you during these long years of effort. Most heartily do we salute you Doctors of Medicine, congratulating you upon honors fairly won and which we trust will be worthily worn.

Upon the open book which occupies the centre of the symbolic devices which ornament the university diploma, are the words *Religio, Mores, Cultura*.

Taking these words as my text, I could wish that I had the eloquence and ability of some of the distinguished men before you this evening, that in this hour of greeting and of parting, full of rejoicing over present success and full of hope and glorious promise of new honors in the real work of your life upon which you are now entering, I could make fitting speech—could utter words helpful unto you, whose future perils are many and great, whose opportunities likewise are many and great, and, therefore, whose responsibilities are so grave.

As the soil, however rich it may be, cannot be productive without cultivation, so the mind without culture can never produce good fruit. During the last four years, you have devoted yourselves to the acquirement of medical knowledge. You have laid well the foundations upon which you must continue to build all your lives. Do not forget that to-day, more than at any other previous period of the world's history, medicine is a progressive science. You can keep abreast of your profession only by constant study.

Do not, however, be content with the acquisition of purely medical knowledge. We frequently hear teachers proclaiming that our science is a jealous mistress; that success will come only to those who concentrate their whole time and thoughts upon medicine alone.

Now, I do not believe that the young physician, who, in the first years of his practice, is fortunate if he has upon the average one patient a day, can profitably devote all his unemployed time to the study of medical books. The man who, failing to perceive the relativity of all knowledge, confines himself to any one department, is sure to become narrow-minded and mentally dyspeptic.

But it is impossible that you should have passed through the scientific training essential to your calling without having had more or less enjoyment in fields of knowledge not strictly medical; for, "though not exact and shapely in all her proportions, Medicine may be said to hold princely rank among her sister sciences. She levies tribute from each and all, that it may

be melted anew in her crucible, stamped with her image and superscription and distributed for the common good."

In acquiring your education, you have necessarily gained some knowledge of the collateral branches of science. During your student days, the stern necessity of perfecting yourselves within a certain range of knowledge compelled you to turn away from these inviting fields; but now I would urge you to take up some of these studies most congenial to you. These will not only afford you abundant opportunity for healthful diversion, but, with culture and a little technical skill, will enable you to "read in the book of nature lessons of life and death too deep for the conning of the uninstructed swain, while all your finer senses wake to the beautiful and joy with ravishment." It is such culture that makes the man a better physician, the physician a better man, well developed in all directions. *Totus teres atque rotundus.*

Associated with the caduceus, the symbol of medicine, engraved on your diplomas, I see the emblems of music, poetry and art, which, perhaps some would say, were the farthest possibly removed from association with your profession; but you will not forget that the famous Hypocratic oath begins with these words: "I swear by Apollo, the physician, by Æsculapius, by his daughters, Hygeia and Pomaria, and by all the gods and goddesses." The great Bacon says it was well for the poets to conjoin music and medicine in Apollo, because the office of medicine is but to tune this curious harp of man's body and reduce it to harmony; and to the more advanced medical mind of to-day, therapeutics has but a single aim—that to restore harmony in the human organism when disturbed.

We would claim, then, that medicine is not only one of the fine arts, but the finest among them, because it has to do with human life. "See deep enough and you see musically, the heart of nature being everywhere music, if you can only reach it," says the rugged Carlyle. Jonathan Hutchinson, than whom perhaps none of England's famous physicians has gained higher honor, advocates, as a means of intellectual training, a study of the English poets.

A knowledge of drawing, at least to the extent of an ability at free-hand sketching, is within the reach of almost every one; and the ability to make enduring records of cases—to picture and preserve the revelations of the microscope, together with the sharpening of one's power of observation which such practice involves—will be more and more appreciated as you grow in years.

Again, the telescope will remind you of that glorious and mind-expanding science of astronomy; and if we, in the cities, are to some extent shut off, by the petty edifices of man, from viewing the spacious firmament, certainly the physician whose lot is cast in the country will have frequent enough opportunity to beguile his lonely midnight drives by a study of the stars. Here the illiterate man sees only a dome of jewels, resplendent in their flashing beauty, but to the man of books the grand panorama of dazzling beauty and gorgeous display grows in magnitude and splendor. With what a perception of the Divine harmony of things and the majesty of the Creator does he contemplate the dome that encompasses the world. To him it expands into illimitable space, and the jewels which flash with the brilliancy of light grow into worlds and suns and systems, which sweep their mighty curves in obedience to the Divine law.

The retort, the balance and the microscope irresistibly compel me to invite you to pursue, as a most efficient means of mental culture, that science which, dealing with the proportions and affinities of the ultimate parts of matter, is the stem, by plucking which you will come in possession of a whole bunch of fruit. "Chemistry ministers to the esthetic sense in every test, and the microscope opens to view a world of dainty beauties, while both alike suggest to the student conceits for the fancy and themes for exalted thought.

The first admonishes him ever of the reign of Law, and that matter obeys the inflexible mandates of a power impersonal and cold—from the infinitely great to the infinitely small; from world to atom; from the starry systems of space to the molecules of the water-drop. The light, soft, white precipitates and color

changes in the test-tube suggests the fleecy skirts of the summer clouds, or the feathery fall of the wintry snow; or bring to mind that trick of Nature's thaumaturgy which decks the trees with green in springtime, the flowers with rainbow hues in summer, and leaf or fruit with gorgeous dyes in the mellow autumn."

You have learned how to use the test-tube and the flask, the burette and the hydrometer, as well as to manipulate your own microscope. Let me urge upon you to add to the knowledge you now have. Every doctor can have a laboratory. Expensive apparatus is not really necessary; remember that Priestley made his magnificent discoveries with apparatus which you would turn from as ridiculously insufficient.

The physician who is familiar with the chemical significance of the morbid variations of the fluids of the body, will be secured against many mistakes. "Instead of groping in the dark and whacking away blindly, sometimes hitting the disease and sometimes the patient—as is the way of some doctors—he will find that his path is illuminated by a flood of light, throwing disease into bold relief, illuminating its path to the end, and showing with distinctness the effects of remedies. Further, he will find a refuge in his laboratory from many of the smaller frets of life, and be cheered by gentle influences unknown to grosser minds. His perception is sharpened by exact study to the better comprehension of the nature of morbid processes, and of the *modus operandi* of medicine. He has a key for solving problems of personal and public hygiene; a light to be got nowhere else for an early detection of some diseases, and sound direction to guide him in their cure."

But, gentlemen, doubtless you have ere this studied out for yourselves the meaning of the emblems which ornament your diploma, and aware that all the arts and sciences are there symbolized; you fear that an allusion to them all is going to lead me into the sin of excessive length and tediousness. But enough! I only ask that, in addition to your medical studies, you seek a broader knowledge. Culture creates a personal in-

dependence, and gives a man a larger knowledge and mastery of his own inner self. Cicero tells us that "the cultivation of the mind is the food of the soul."

Not the least of the qualifications for professional success are good manners; but these must be genuine, not sham. The three Graces of manners are Gentleness, Cheerfulness and Urbanity, and these graces you should cultivate, for men succeed less by their talents than their character. Good manners are a part of good morals, and ten men have failed from defects in morals where one has failed from defect in intellect.

Medicine is one of the learned professions; it is also called a liberal profession—that is, its members are required to avoid whatever is mean and low; to shun narrow-mindedness; to be catholic in the discharge of professional duties, irrespective of religion, rank or race; to conduct themselves as gentlemen. The illustrious Thackary thus answers the question, What is it to be a gentleman? "It is to have lofty aims, to lead a pure life, to keep your honor virgin, to have the esteem of your fellow-citizens and the love of your fireside, to bear good fortune meekly, to suffer evil with constancy, and through evil or good report to maintain truth always. Show me the happy man whose life exhibits these qualities, and him we will salute as gentleman, whatever his rank may be." If this is your ideal, I need say nothing of your duties to your fellow-physicians. The gentleman needs no code to regulate his conduct.

But your profession imposes upon you peculiar duties and responsibilities to those who place themselves under your care. "Who stands so close to the needs of man as you will—to whom, in their very direct needs, all will cling—to whose voice sick hearts will listen as if it were the very voice of God declaring judgment or mercy; the very skirts of whose garment, if only a heart beats beneath them, faint hands will be raised to touch; closest to the very sources of life you will stand; it is the physician's place." Endeavor to realize these responsibilities. Let no familiarity with suffering make you cold or unsympathetic, but, humbly following in the footsteps of the

Great Physician, let your heart be a fountain of charity, kindness and love. In the course of your practice, you will learn many personal and family secrets ; you may hear many startling revelations. Betray not the confidence reposed in you, or honor and happiness will not be in your path.

And now there remains of my three heads the subject of Religion. It is with hesitation that, in the presence of those who have devoted their whole life to the holy duties of religion, and who have received the Divine commission to teach men the way of salvation, that I address you on this subject. I desire to express my conviction, however, that our culture and manners, and all the good things which are connected with the civilization of to-day, depend upon, and have been evoked by the spirit of religion. There is nothing which so harmonizes with the natural greatness and dignity of human nature as a faith which not only promises the entire refinement of the mind, but also the glorifying of the body. On the other hand, for the medical man to seek a broad culture and the attainment of high moral excellence is doubly necessary, for the undoubted tendency of medical study, when restricted to the mere physical man, is to lead him to the narrowness and absurdity of materialistic theories. Cardinal Newman has wisely said : "A medical philosopher who has so simply fixed his intellect on his own science as to have forgotten the existence of any other, will view man, who is the subject of his contemplations, as a being who has little more to do than to be born, to grow, to eat, to drink, to walk, to re-produce his kind, and to die. He sees him born as other animals are born ; he sees life leave him with all those phenomena of annihilation which accompany the death of a brute. He compares his structure, his organs, his functions with those of other animals, and his own range of science leads to the discovery of no facts which are sufficient to convince him that there is any difference of kind between the human animal and the brute."

I sincerely hope that the graduates of Niagara University will never be among those who accept fancies of the most con-

jectural character as new articles of belief, which involve the abandonment of old truths as well as the sacrifice of the firm bulwarks of faith. The atheistic and materialistic conclusions, so loudly proclaimed by certain scientific men, are accepted by some who are too lazy to think over the principles upon which the doctrines they are persuaded to accept are based ; by many, who, impressed with evidences of extraordinary talent in certain fields of science, and accustomed to receive the dicta of scientific men without question, credit them with similar authority on matters of faith, forgetting that the very devotion of mind, through the best years of life, to a totally different class of ideas, render them less instead of more trustworthy upon theological and historical questions.

I believe that all materialistic doctrine, vary as they may in detail, accept as a truth the monstrous assumption that the living and non-living differ only in degree, and that every living thing, every human being, is just as much a machine as a watch, a wind-mill, or a locomotive ; that this world of machines is dominated by a blind, relentless, irresistible fate, falsely called law or nature ; a nature destitute of intelligence and reason, devoid of justice and mercy, not contributing to the happiness or enjoyment of any, but ever working like a dead, senseless machine of overwhelming might, marring, crushing, distorting, destroying, and thus continuing and preserving.

Those who so authoritatively propound such dogmas appear to look upon themselves as mechanisms of culture and quality, so transcendent that their escaping gases should serve as the motive power of all other machines of humbler capabilities, the threatened penalty of refusal being that of being numbered amongst the fools, the bigots, the orthodox and the like.

But, gentlemen, to the end of the world there will be those who choose darkness. It is light that enables us to see the differences between things, and it is Christ that gives us light. Sir Humphry Davy thus eloquently writes on the advantages of a firm religious belief, which, he says, I would prefer to every other blessing, " For it makes life a discipline of goodness ; cre-

ates new hopes when all hopes vanish, and throws over the decay, the destruction of existence, the most gorgeous of all lights; awakens life even in death, and from corruption and decay calls up beauty and Divinity; makes an instrument of torture, and of shame a ladder of ascent to Paradise, and, far above all combinations of earthly hopes, calls up the most delightful visions and plains and amaranths, the gardens of the blest—the security of everlasting joys, where the sensualist and the skeptic view only decay, annihilation and despair.”

And thus, my new brothers in the profession, I give you farewell counsel. Set out on your career with brave hearts and a firm resolve to do no discredit to your *alma mater*. You bear her name—sustain her reputation by your self-respect, your gentlemanly conduct, your large-mindedness; let no necessity compel, no temptation seduce your feet to devious paths, but with onward stride through every difficulty, danger and trial, may you “Press toward the mark for the prize of your high calling;” and remember that—

“We live in deeds, not years; in thoughts, not breaths;
In feeling, not in figures on a dial.
We should count time by heart-throbs. He most lives
Who thinks most, feels the noblest, acts the best.”

*SOME GENERAL RULES WHICH WILL DETERMINE THE NECESSITY OF AN OPERATION IN THE NASAL PASSAGES.**

By FRANK H. POTTER, M. D.

Surgeon to the Nose and Throat Department, Good Samaritan Eye and Ear Infirmary;
Assistant in *Materia Medica*, Niagara University.

It is the purpose of this paper to present for your consideration some general principles which should govern the determination of an operation within the nasal passages. Of course, there is an indeterminate factor here, as in all departments of surgery, which may prevent the successful issue of any opera-

*Read at the annual meeting of the Alumni Association, Medical Department, Niagara University, April, 1887.

tion. The hereditary influences and individual peculiarities always give to the personal equation of a patient serious weight ; and our obscure knowledge concerning these mysterious forces should make the surgeon cautious concerning his prognosis. It is not yet possible, except within well-defined limits, to reduce to general principles rules governing these idiosyncrasies, as we call them—a term which, in my opinion, covers over a great amount of ignorance on our part concerning nature's laws. This reference to the personal equation of patients is made because I desire it to be borne in mind during the brief discussion that follows. Nothing I shall say should operate entirely against a particular case when carefully considered ; but the rules propounded will, I think, assist us in determining, in the majority of instances, when surgical relief should be advised.

We can reduce the discussion of this question almost to a single proposition : When there are symptoms, operate, no matter how small may be the offending condition ; when there are no symptoms, don't operate, no matter how great may be the departure, real or apparent, from the normal condition. I do not believe it should be our effort to construct a perfect anatomical and physiological nose, and then attempt to mould and re-mould all other noses until they reach, or come fairly near, that standard. Apart from the great difficulty of doing this, it is not the proper theory of practice. It is wiser to be content with removing the offending conditions, whatever they may be, trusting to the resources of nature to effect the further relief. Perhaps, in order not to be misunderstood, I should discuss this matter a little more in detail.

A patient comes to you complaining of some nasal trouble, and upon investigation you find the symptoms due to an irritation somewhere in the cavities of the nose. This irritation should be carefully located and removed. If you have reason to suspect several causes for the irritation, seek out the most offending one, remove it and wait. It is possible that nature may be able to take care of the other causes after the most serious one has disappeared. This, then, is a primary rule in the

treatment of the diseases of the nose, viz.: All causes of irritation must be removed, the most offending one first if possible. In this connection, I desire to call attention to a paper read by Dr. A. B. Farnham, of Milwaukee, before the Wisconsin State Medical Society in 1886. In this paper the author arrives at practically the same conclusions as we have here expressed. Discussing the principle just mentioned, he says :

“ The primary application of this principle takes out of the discussion the larger growths and limits it to the smaller hypertrophies of the mucous membranes, and to the exostoses and deviations of the system. These latter play, by all means, the leading rôle in the mucous hypertrophies and degenerations under consideration. From congenital and accidental causes, the growths upon, and deviations of this partition are of exceeding variety and complexity. No matter how numerous or how varied, let them alone unless they are causing irritation, and even then take away only sufficient to fully relieve the pressure and chafing of the opposing membrane. By one or more observations, determine the most offending growth, or portion of a growth, and remove that and wait, when possible, and see the full result of what has been done.”

So many writers have arrived, independently, at these same conclusions, that it would only be wearisome to repeat what has been said. There is a growing conservatism in the treatment of diseases of the nasal passages, which argues well, not only for the patients, but for the profession ; for part of our skill depends upon knowing when not to interfere with nature's own plan and method.

There is one suggestion in regard to the causation of the deformities of the septum, to which I invite your attention. Dr. Bosworth, of New York, is inclined to believe that they are all both deflections and deformities, due to traumatism. The injury may be received in infancy or childhood, and cause a chronic arthritis or deforming arthritis, which only shows itself to a degree demanding treatment later in life. Now, is it not possible that the formation of the interior of the nose, like the

formation of its exterior, may be a family characteristic—in other words, due to heredity? The nose is said to be the feature that the laws of heredity most effect, and I see no reason why the interior, as well as the exterior, should not be under their influence. Traumatism is, no doubt, an important causative factor in the production of these deformities, but to say that they are all due to it seems to me to be a narrow position, in view of the possibility of the operation of other influences.

This suggestion as to the part heredity may play in the causation of these conditions, should make us cautious about interfering too much with the nasal passages, and tends to support the conservatism in regard to operations expressed in this paper.

A second rule to be borne in mind is, that there should always be sufficient breathing space through the nasal cavities. The nose is primarily an organ of respiration, and any interference with this function entails disastrous consequences. These evil results range from partial deafness to severe laryngeal and pulmonary disease. It is, therefore, most important that there should be no infringement upon the nasal breathing space.

A third rule has to do with drainage. Whenever there is sufficient obstruction to interfere with the removal of the nasal secretions, these become dry, through evaporation of their watery elements, and adhere tenaciously to the sides of the passages, causing considerable irritation. After a time, these crusts decompose, increasing the irritation and causing foul odors. It is, therefore, important to see that the proper drainage of the nose is not prevented in any way.

Though it sometimes happens that but one of these rules applies to a given case, they are generally found associated—a particular obstruction not only encroaching upon the breathing space, but causing considerable irritation, and interfering with proper drainage.

There are, of course, some special rules not coming within the province of this paper which bear upon this question, but

the application of those we have given will generally enable you to determine whether or not the nasal passages are in need of treatment.

The conclusions of this paper can be formulated as follows :

The nasal tract requires treatment whenever there is within it (1) any cause of irritation ; (2) any encroachment upon the normal breathing space ; (3) any interference with its proper drainage.

*DR. BERGEON'S METHOD OF TREATING CONSUMPTION BY MEANS OF GASEOUS ENEMATA.**

By DR. BYRON H. DAGGETT, Buffalo, N. Y.

Being urged to carry out the treatment of pulmonary consumption as inaugurated by Prof. Bergeon of France, and not having the apparatus for so doing, I attempted from a meagre description of the proposed method to extemporize an apparatus for fulfilling its indications. Messrs. Howell & Son kindly charged some of their so-called soda water bottles with carbonic dioxide. This carbonic gas bottle was connected by a rubber tube with a Wolff bottle containing nearly a quart of water saturated with hydrogen sulphide, and the Wolff bottle was again connected with a rubber bag having a stop-cock. Pressing upon the lever of the carbonic gas bottle, the gas is forced through the sulphurous water, carrying with it the sulphuretted hydrogen into the bag, and when the bag is filled the stop-cock is turned and a rectal nozzle is introduced into the disconnected tube. The remedy is then ready for use, and is readily carried to the bedside of the patient. An objection made to this manner of generating and using the gas is that too much hydrogen sulphide may be used. My limited experience does not corroborate this view. I have found no ill effects from it, but, upon the other hand, my patients have soon noticed when the sulphurous water was depleted so as not to furnish the full complement of sulphurous gas, and would say, " It is not as strong as before and

*Read at the annual meeting of the Alumni Association, Medical Department, Niagara University, April 12, 1887.

does not do as much good." Another objection has been made, that the bags would soon be destroyed. So far, I have not had any such trouble. This modification of the process certainly renders the treatment of patients much more convenient.

In 1882, Dr. Bergeon inaugurated the treatment of pulmonary consumption by gaseous enemata of carbon dioxide and hydrogen sulphide combined, and in July, 1886, reported wonderful results, so that this subject is attracting wide-spread attention.

Bernard demonstrated, in 1857, that toxic and medicinal agents introduced into the intestinal canal were taken up by the venous system, carried through the portal system, the liver, the hepatic veins and the lungs, and were eliminated by the liver and carried off by the bile, or, if volatile, were exhaled by the lungs. In these ways they were prevented from entering the arterial circulation.

He also demonstrated that hydrogen sulphide could be safely injected into the veins and rectum of a dog. Dr. Bergeon, experimenting upon animals, found that injecting preparations of chlorine, ammonia, ether, turpentine and bromine into the rectum caused violent inflammation.

He introduced a mixture of carbon dioxide and hydrogen sulphide, and learned that this combination was well borne, if free from atmospheric air. Reasoning from these premises and knowing that sulphur is an antiseptic as well as a microcide, he instituted the treatment of pulmonary maladies by gaseous enemata. He reported over two hundred cases treated in this way, and some of them he considers cured.

Dr. Cohen, of Philadelphia, says: "All reported cases show rapid amelioration of all suppurative phenomena; marked diminution of cough, expectoration, dyspnoea and night sweats, being noted within two or three days."

In some of his own cases, there was a similar prompt improvement, but not in all, although they have all done well with one exception; some were very pronounced cases, and there was no hope in the more familiar methods of treatment. Dr. Bruen,

after several weeks' treatment of cases in the various stages of the disease, summarizes as follows :

"In nearly all cases, lasting effects have been secured in the reduction of temperature, suspension of night sweats, lessened cough and expectoration, and in some *all physical signs of bronchial catarrh are abolished.*

"The amount of gas introduced has been from three quarts to a gallon at each injection, taking from fifteen to thirty minutes.

"Injections were given twice daily in most cases.

"No injurious effects were observed.

"Effects were negative in only one case.

"The ultimate value of the treatment can only be established by time.

"The mode of action would seem to be antiseptic, and, by reducing suppuration, consequent relief of serious symptoms, permitting the patient to gain by food, exercise and general treatment.

"Thus far the gas appears to be a valuable therapeutic agent, rather than a curative plan of treatment."

In this, Bruen appears to differ with Bergeon, who, after four years' experience, reports specifically, and in detail, individual cases who are well and who present no symptoms of the disease, and whom the doctor regards as cured.

My experience in cases in the past ten days coincides with these reports in this: there is marked amelioration of all the symptoms. In the first case, Mr. W., a severe diarrhœa ceased after beginning this treatment. Pulse rate was reduced from 140 to 90 in three days, respirations from 40 to 24. The sputa became thinner and colored yellowish. There was marked relief to the pain and constringency of the chest. One case reports a cold sweat, followed by a severe chill, the third night after beginning the treatment. With this exception, there has been no night sweats since the second night. My patients lose the hectic flush and look pale. The chill referred to I attributed to the treatment, in part at least, as I had pushed the remedy beyond the regulation amount. In administering the gas, I have noticed

that there will be a complete stasis for three or four minutes, and suddenly the bag will rapidly subside with a gurgling noise ; this brings on colic, and the gas should be turned off until the distension of the abdomen subsides, which will be three or four minutes more. I have administered from three to six quarts once and twice per day, as I found it convenient. My patients send for the bags after three or four treatments, and administer it themselves, at their own pleasure. My experience is too brief and limited to warrant me in formulating deductions of any results except temporary relief.

This method of Bergeon opens a vast field for investigation, and another avenue for reaching and, we trust, successfully combatting lung as well as other visceral maladies.

258 Franklin street.

Translations.

IS PULMONARY CONSUMPTION CONTAGIOUS?

By DR. A. BROCHIN.

Translated from *Le Journal de Med. de Paris*, by F. R. CAMPBELL, A. M., M. D.

No question is of greater importance to the practitioner and sanitarian than that of the contagiousness of pulmonary consumption. I am surprised that the subject is not more frequently discussed in our scientific societies, and that the report of our eminent confrere, M. Vallin, is not taken as the basis of further researches.

While the profession is still divided on this question of the contagiousness of tuberculosis, the number of "contagionists" is daily increasing. If each physician would search through the records of his practice there would be discovered such a number of cases pointing to the propagation of consumption by contagion that the most skeptical would be convinced.

We do not mean to say that consumption is as contagious as small-pox, scarlatina, typhoid fever, or even erysipelas. If it were, we would all die of tuberculosis. But we cannot conscientiously deny that consumption is often propagated from person to person where the surrounding and physical conditions of those exposed are suit-

able. It is, therefore, the duty of physicians to take certain precautions to arrest the ravages of this dread disease.

I will now submit to you some facts tending to demonstrate that pulmonary tuberculosis is contagious. In October, 1885, I was called to attend Madame G., a school teacher, who for some time had complained of a cough and a feeling of fatigue. She was a lady 25 years of age, married three years, having had two children. Since her last confinement she had had a cough, and lost weight and strength. A physical examination of the chest revealed undoubted signs of tuberculosis in its first stages. Her grandmother and a sister had both been affected with lung disease. Her duties as teacher in a large school exhausted her strength very much. She lived with her husband in the basement of the school building, in rooms badly lighted and ventilated. The disease increased so rapidly that in January, 1886, her husband informed me that she passed whole nights in coughing and spitting, and her perspiration was so excessive that it was necessary to change her clothing several times every night.

She died in March, and her husband, who was absolutely without any tendency to consumption as far as family history and physical conformation was concerned, became tuberculous and, at this writing, March, 1887, has an enormous cavity in his left lung and tubercular granulations in the larynx.

This fact appears to me to be demonstrated, that a healthy man, without any constitutional predisposition to phthisis, if exposed for a long period to the exhalations of a tubercular patient will acquire the disease himself if the hygienic surroundings are unfavorable.

Case 2.—Madame Y., aged 31 years; father and mother died of consumption, became tuberculosis herself, and died after an illness lasting four years. Her husband, aged 33, was a strong, healthy man, without any history of tuberculosis in his family, occupied the same room with his wife up to three months before her death. Even before she died he was affected with a cough, lost his appetite, became emaciated, and had night sweats. On auscultation I discovered a consolidation at the apex of the left lung. How could the disease have been acquired except by contagion?

Case 3.—Madame P.; aged 25 years, married three years, two children, exhibited signs of tuberculosis in November, 1884. After careful and prolonged treatment, her condition improved and she renewe-

her household duties, but continued to cough. Her husband, aged 30 years, hitherto in the best of health and without any hereditary tendency to lung disease, was attacked with what was apparently acute bronchitis. But alarming symptoms of consumption soon developed, and in spite of energetic treatment he died of phthisis in July, 1886. His wife is still living, but has a cavity in her left lung. Her children are in good health.

Case 4.—This case relates to the history of one entire family. The father, aged 35, printer by trade, was obliged to work many hours a day to support his wife and six children. Of these children, two died of tubercular meningitis when two years of age. The third year the father became ill, and died of consumption in six months. The eldest son, who assisted his mother in the house, died of acute tuberculosis. This was the fourth death from tuberculosis in three years in this family. You will say that heredity might explain all, but how will you account for the following:

The mother, an extremely robust and energetic woman, with no hereditary tendency to consumption, continued to do her utmost for her husband and children. She soon became phthisical, and in a short time died. One of the remaining three children, a girl 16 years of age, is already pale, emaciated, and seems to be tuberculous.

In this history, we can explain the disease of the father, who was the son of a consumptive, and of the children, by heredity. But what other cause than contagion can be invoked to explain the affection of the mother? Will you say that overwork and grief was the cause? These may be contributing causes, but are not sufficient to explain the appearance of tuberculosis in a robust woman, hitherto in the best of health, and without a family history of the disease.

It is a generally-received opinion among contagionists that death comes on more rapidly in cases where the disease is acquired by contagion than where it is primarily developed. I do not know whether these rules will stand the test of further investigation, but in the cases just reported this seems to be true. But I have observed a number of cases in which children, attending parents afflicted with tuberculosis, would appear to have signs of the disease, which were in time relieved.

I will cite, for example, the case of a young lady, 20 years of age, who devoted her whole time to the care of her father, who died of

consumption. She remained in the rooms which had been occupied by her father, and became ill with what appeared to me and other physicians to be consumption. But she has since regained her health, and earns her living by her own hands. Of course, we may have been mistaken in our diagnosis, for the cure of consumption in the condition of poverty in which this girl lives is very rare indeed.

I could give many more examples of the contagiousness of consumption which I have observed in my practice during the last fifteen years. But it is a subject so extensive that prolonged study and deep research are necessary to clear up all the factors in these cases. I have only desired to call your attention to some facts pointing to the contagiousness of phthisis, and I would be very happy if other members of the profession would publish their observations on this subject. If it can be demonstrated beyond question that tuberculosis is contagious, it becomes our duty to provide separate wards for consumptives in hospitals; to insist on the isolation of our patients in private practice, and to employ disinfection and antiseptics in the treatment of these cases, matters which have been hitherto entirely neglected in this country, although carried out in Germany and England.

Selections.

THE HYGIENE OF THE HAIR.

By GEORGE THOMAS JACKSON, M. D.

Attention to the care of the hair and the hairy scalp is of special importance to those who belong to families in which premature baldness is hereditary; and it cannot be given too early. We should, therefore, instruct the parents as to the importance of giving attention to their children's heads, so that the matter may not be delayed too long, and the hair fall out when it is too late to stop it. Dandruff is regarded by most people as merely an annoyance, and, if not excessive, is neglected. If we could convince the laity that dandruff is one of the chief causes of baldness, it would eagerly seek relief, the disease could be early checked, and the day of hair-fall very much delayed. The care of the hair is important not only to those with an inherited tendency to baldness, but to all who wish to preserve their hair in

good condition. If properly attended to, it will be a prophylactic not only to diseases of the hair proper, but also to parasitic troubles of all sorts. It is true that this demands the expenditure of a certain amount of time, but it is time well expended, though, I must confess, often greatly begrudged by male patients.

The hygiene of the hair and scalp consists in the proper use of the shampoo; in brushing and combing; in arranging the hair, especially in women; in the exposure of the hair to air and light, especially in men; in cutting and shaving it; and in the use, or rather avoidance, of pomades. We should watch over the hair from infancy, and instruct our patients as carefully in regard to its hygiene as we should do in regard to matters of general hygiene.

SHAMPOO.

The first attention that the hair demands is the ridding of the scalp of the new-born child of the *vernix caseosa*. This is the first shampoo and should be more carefully performed than any subsequent one. Improper management at this time may entail endless worry to the mother and a great deal of suffering to the child, as it is exceedingly likely to set up an inflammation of the scalp.

The child is born covered with a fatty matter called *vernix caseosa*, which is often very thick upon the scalp. Steps are to be taken at once for its removal, which must be effected with the greatest care and with the avoidance of all force. To this end the scalp is to be saturated with sweet-almond oil, which is the most elegant means, or with olive oil or vaseline. It is preferable to use these in their natural state, but if desired there is no objection to perfuming them with a few drops of the oil of bergamot, wintergreen, or the like. The nurse should do this immediately after she has washed the child's face and eyes. Then, after the body has been bathed and the infant dressed, the head should be washed with plenty of warm water and soap, such as pure castile, or glycerin soap, either solid or liquid. This should be done very gently, and if the *vernix caseosa* is not readily removed, re-apply the oil and wait until the next day, when it will be easily washed off. Should it still prove obstinate, patiently repeat the process until it comes off. In no case use the fine toothed comb. For some weeks, the infant's scalp should be lightly oiled, as this will prevent any accumulation of sebaceous matter, and protect the tender

skin from injury from atmospheric causes until the hair grows, care being taken to wash the head daily to prevent the oil from becoming rancid. When the hair is grown, the scalp need not be so often oiled, nor should it be washed more than twice a week.

In children and adults, the scalp should be kept clean, so as to avoid stopping up the hair follicles with foreign matter and to prevent any irritation of the scalp which its presence might cause. This is accomplished by the systematic use of the shampoo, followed by careful drying and the application of some oily substance to the scalp. It may be given as a rule that a shampoo every second to fourth week is sufficient for the scalp of those who are not exposed to more than the usual amount of dust ; while those who are so exposed should shampoo their heads every week or two.

The daily practice of sousing the head with cold water, which is very commonly done by men, is pernicious, not because the water itself is harmful, but because the scalp is not properly dried afterwards ; no oil is applied to take the place of the oil that has been removed by the water ; the wet hair cannot be thoroughly brushed, and soon gets into a condition of dryness and brittleness. Women avoid getting their hair wet, and this may be one reason why they are less often bald.

The proper manner of shampooing the head is as follows : Choose some good soap, such as " Pear's Glycerine Soap," " Sarg's Liquid Glycerine Soap," pure castile soap ; the tincture of green soap, or the tincture of prepared olive soap, and with plenty of warm water make a good lather on the head, and rub the head vigorously with the fingers, or with a rather stiff, long bristled brush. If the scalp is very sensitive to irritants, borax and water may be used instead of soap, or a mixture composed of the yolks of three eggs beaten up in a pint of lime water, either of which will make a good lather with water. When the head has been thoroughly shampooed, wash out the lather with a copious supply of warm water, or, where practicable, with alternate douches of warm and cold water, and then dry both scalp and hair with a good bath towel. When all is dry, rub on the scalp, not on the hair, a small quantity of some unctuous substance, such as sweet-almond oil, or vaseline. Care must be used in drying the hair, specially in women, who should sit before an open fire or in the sunlight in so doing ; and who should not dress the hair until it is per-

fectly dry. To oil the scalp, the hair should be parted and the oil rubbed in along the part, then another part made and the operation repeated, and so on till the whole scalp is gone over. Should there be an excess of oil upon the hair, a condition which is disagreeable to many, it may be removed readily by pulling the hair between the folds of a damp towel moistened with ether, chloroform, or cologne water.

BRUSHES AND BRUSHING.

Of far more importance than shampooing is the use of the brush and comb, and much more care should be given to the selection and use of these common toilet articles than is usually bestowed. Too often they are badly made, and generally, especially with men, they are used in a very perfunctionary manner. The brush which is to be used upon an infant's head should have long soft bristles, so as not to scratch or irritate the tender scalp, and should be employed simply in smoothing and polishing the hair. For young children whose hair is well grown, a stiff brush is necessary, and for adults two brushes should be used, a stiff one and a soft one. A properly-made brush has its bristles placed in little clumps or groups in such a manner that the middle bristles of each group are longer than those of the periphery. The bristles are well set into the back of the brush, and the groups are wide apart. Most of the brushes met with in the shops are made with the bristles all of the same length and the groups close together, so as to look pretty, but not to perform their proper function. The brush should be used systematically in the morning, and with considerable vigor, so as to produce a feeling of warmth in the scalp, and to brush out all particles of dandruff and foreign matter lodged in the hair. Every part of the scalp should be gone over with a stiff brush, and then it should be laid aside for the rest of the day, and the soft one used to assist the comb in parting the hair, and to give smoothness and gloss to it. The stiffness of the brush and the vigor of its employment must vary with the tenderness of the scalp, and in no case should be sufficient to cause a feeling of soreness. Were brushing performed in the manner indicated, the hair would lie properly without the aid of water or pomades, excepting, of course, in cases of mal-position of the hair, as in the so-called cow-lick, or where the hair is unnaturally stiff.

COMBS AND COMBING.

The comb is next in importance to the brush, its office being to open up the hair so that the brush may reach all parts of the scalp, to

part the hair, and to disentangle snarls. A properly-made comb has long, thick, wide, perfectly smooth teeth with well-rounded ends, and set wide apart. In choosing a comb, it should be held up to the light and discarded if any roughness or irregularities are found in the surfaces of its teeth, for such a comb would catch and tear the hair. Combs are usually made with a coarse and a fine half, and there is no objection to this arrangement if the fine part is used only to disentangle the hair. No attempt should be made to pick off crusts from the scalp with the comb. It should be used only as an assistant to the brush, and always with it in the systematic morning brushing. No comb should touch an infant's scalp, and the fine-toothed comb should be rigorously excluded from the toilet case. It is a dangerous instrument, the cause of many a case of eczema, and only of use in removing the ova of lice from the hair. Above all things, the tender scalp of the infant should be spared from its damaging effects.

DRESSING OF THE HAIR OF WOMEN.

Now we come to a place in the discussion of the hygiene of the hair, in which fashion often interferes. Examination of old fashion-plates and portraits will show how women and men have tortured the hair, twisting it into all sorts of shapes and smothering it under wigs, false hair, and powder. Happily, at present the hair is worn more simply, but still the crimping or the curling iron is too much used, and the hair is pulled and dragged upon too much in adapting it to the varying demands of the hair-dresser. Sooner or later nature is apt to rebel against fashion and the hair of the woman is lost in the fight.

The simplest mode of wearing the hair is the best. It should be combed and brushed smoothly back upon the top of the head, either parted or not, as is most becoming, and gathered into a loose braid or coil at the back of the head. Girls should wear a pendant braid, and women whose hair is grown and who gather the hair into a coil, should use large hair-pins in fastening it, preferably of rubber or bone, with absolutely smooth surfaces. In doing up the hair, care should be taken not to drag upon it; and drawing it into unnatural positions, such as pulling the hair from the back of the head over forwards to near the forehead, should be avoided. If a woman's hair curls naturally, she should be thankful for the favor therein bestowed, but

should it not curl of itself, she should not attempt to make it curl by singeing and squeezing it between hot irons, scorching it over a hot pipe-stem, or twisting it up tightly in curl papers.

WIGS, HATS, ETC.

The hair requires for its growth and for the maintenance of its health both air and sunlight, though not necessarily exposure to the direct rays of the sun. It is difficult to prove that wearing of the hat constantly is a cause of baldness, but there are many indications that such is the case, and it is well to avoid keeping the head covered with an unventilated hat. If the occupation compels one to be out of doors most of the time, or exposed to draughts so that a hat or cap must be worn, it should be well ventilated so that the heat from the head may not become confined and the head more or less sweated.

The wearing of wigs and false hair is bad for whatever hair remains, and should not be practiced. The absurd "water-falls" of a few years ago, and the no less ridiculous powdered wigs of old times, are happily things of the past, and should never be revived. If a woman's hair is short and scanty, it is better to wear it cut short, and endeavor to stimulate its growth by attention to the scalp, than by wearing false braids to assume a beauty which she has not. Wigs heat the head and sweat the hair; false hair by its weight drags upon the feeble hair it is desired to fortify.

The wearing of night-caps was once a custom founded upon the need of keeping the head warm in the inadequately heated bed-rooms of our ancestors. With the improvement in house building and heating, the custom has passed away, and should not be revived, as it excludes the air from the hair continuously for a good part of the day. Of course, where there is no hair, and the bald individual is sensitive to the cold, there can be no objection to keeping the head covered with a wig by day and a cap by night.

HAIR CUTTING.

All men wear the hair short and employ a barber at varying intervals, according to their fancy. As far as the health of the hair is concerned, it is immaterial whether it is cut at longer or shorter intervals, but it is essential that it should be well cut, and a good barber is desirable. It should never be "shingled," as the barbers

term an operation which consists in cutting the hair by a to and fro motion of the shears, as this tears and roughens the hair.

The hair of children, whether they be boys or girls, should be kept short until the seventh or eighth year of age, as the growing hair is a drain upon the nutrition of the body, and at this time of life all the nutritive forces should be expended in the growth of muscle and bone. The hair of a girl, after she has reached her eighth year, should be allowed to grow, as the less the hair is cut the softer it is, and for a woman a head of fine hair is much to be desired. But should the girl be so situated that her scalp and hair cannot be properly cared for, then she will have a better chance for a good head of hair later in life if it is cut when she is young.

The hair of women is seldom worn short, although of late some women have seen fit to adopt the style of wearing the hair like a man, along with his coat and waist-coat. It is quite common for the long hair of women to be split at the point. This should be looked for, and if found, the hair should be cut above the cleft. All ragged ends should be lopped off, and all weak hairs should be cut off near the head to improve their strength.

SHAVING.

The shaving of the beard is regulated largely by fashion. Physiologically, it is best not to shave, for if we do we rob ourselves of a useful protection to the throat and lungs. As shaving often makes the hair grow coarser, it is often resorted to very early by the youth for the purpose of rendering the down of the lip or cheek more apparent. It would be better to endure the down for a time, as he would be rewarded by the growth of an elegant short beard. If one must shave, he should do it himself, and see that his razors are kept sharp. He should shave himself so as to avoid the risk of an infection with ringworm of the beard; if his razors are dull, he is apt to set up an inflammation of the hair follicles or skin. For shaving, a mild soap that forms a thick lather should be used, and after the operation, especially in cold or windy weather, the face should be powdered with simple rice flour, or fine corn starch.

POMADES.

Punch's advice to a man about to marry is equally applicable to the use of pomades. It was: "Don't." Their regular use upon the

healthy scalp is uncalled for. They are dirty, soon become rancid, and emit a foul odor, unless this is covered by some strong perfume, and they soil whatever the wearer's head comes in contact with. If the rules already given are followed, the hair will be smooth and have sufficient lustre for beauty without pomades. If the scalp is diseased, advice should be sought, and the proper remedies obtained.

Most of the greases advertised for the cure or prevention of baldness or grayness are useless, and some harmful. The powers of some have been vaunted upon grounds that are rather funny, as for instance bear's grease, because the bear is well covered with hair. "Bandoline" and the like sticky substances, as well as hair dyes, should not be used, as the former is bad for the hair, and the latter are not infrequently followed by loss of health from the poisons they contain.

In some cases, the hair becomes matted together in a tangled mass, especially that of women during prolonged illness. From whatever cause arising, care and patience will usually enable the mass to be unraveled, and the hair saved. To do this, it must be attacked, a little at a time, with oil, soap and water, and the fingers, and picked apart and combed straight. By proper care, the condition is avoidable in most cases. It would be very exceptional when a patient could not bear the combing of the hair with a coarse comb once a day, followed by plaiting it into one or two plaits. When this is done gently and quietly, it will prove refreshing, and will prevent any trouble with the hair during convalescence. If it cannot be done, then it is best to cut off the hair to one-half or one-third of its length, so that it will be less liable to tangle.

As the hair sympathizes with the general health of the body, the latter should be maintained in good condition by a wise conformity to the laws of health. By the proper combination of the hygiene of the body with that of the hair, it is possible for even one who is predisposed to premature baldness to ward off the evil day for years, and one who comes of a strong-haired family should, as a rule, not become bald or have any essential disease of the hair.—*American Lancet*.

MINNESOTA MEDICAL PRACTICE ACT.

Following is the full text of the recently-enacted law regulating the practice of medicine in Minnesota, reference to which is made in our editorial columns:

AN ACT to regulate the practice of medicine in the State of Minnesota, and to license physicians and surgeons, and to punish persons violating the provisions of this act.

Be it enacted by the Legislature of the State of Minnesota.

SECTION 1. The governor of the State shall appoint a board of examiners, to be known as the State Board of Medical Examiners, consisting of nine members, who shall hold their office for three years after such appointment and until their successors are appointed :

Provided, That the members thereof first appointed under this act shall be divided into three classes, each class to consist of three. The first class shall hold office under said appointment for the period of one year, the second class for two years, and the third class for three years from the date of their appointment.

It is further provided that no member thereof shall be appointed to serve for more than two terms in succession, and no member of any college or university having a medical department shall be appointed to serve as a member of said board, two of which are homœopathic physicians.

§ 2. Said board of medical examiners shall elect a president, secretary and treasurer, shall have and keep a common seal. The president and secretary shall have the power to administer oaths. Said board of medical examiners shall hold meetings for examination at the capital of this state, on the first Tuesday of January, April, July and October of each year, and such other meetings as said board may from time to time appoint. Said board shall keep a record of all the proceedings thereof, and also a record or register of all applicants for a license, together with his or her age, time spent in the study of medicine, and the name and location of all institutions granting to such applicants degrees or certificates of lectures in medicine or surgery. Said register shall also show whether such applicant was rejected or licensed under this act. Said books and register shall be *prima facie* evidence of all of the matters therein recorded.

§ 3. All persons hereafter commencing the practice of medicine or surgery, in any of its branches in this state, shall apply to said board for a license so to do, and such applicant at the time and place designated by said board, or at the regular meeting of said board, shall submit to an examination in the following branches, to-wit: Anatomy, physiology, chemistry, histology, materia medica, therapeutics, preventive medicine, practice of medicine, surgery, obstetrics, diseases of women and children, diseases of the nervous system, diseases of the eye and ear, medical jurisprudence, and such other branches as the board shall deem advisable; and present evidence of having attended three courses of lectures of at least six months each; said board shall cause such examination to be both scientific and practical, but of sufficient severity to test the candidates' fitness to practice medicine and surgery. When desirable, said examination shall be conducted in the presence of the dean of any medical

school or the president of any medical society of this state. After examination, said board shall grant a license to such applicant to practice medicine and surgery in the State of Minnesota, which said license can only be granted by the consent of not less than seven members of said board, and which said license shall be signed by the president and secretary of said board and attested by the seal thereof. The fee for such examination shall be the sum of \$10, and shall be paid by the applicant to the treasurer of said board, to be applied by said board towards defraying the expenses thereof, and such board may refuse or revoke a license for unprofessional, dishonorable or immoral conduct.

§ 4. The person so receiving said license shall file the same or a certified copy thereof with the clerk of the district court in and for the county where he or she resides, and said clerk of the court shall file said certificate or copy thereof, and enter a memoranda thereof, giving the date of said license and name of the person to whom the same is issued, and the date of said filing, in a book to be provided and kept for that purpose, and said clerk of the court shall each year furnish to the secretary of said board a list of all certificates on file in his office, and upon notice to him of the change of location or death of a person so licensed, or of the revocation of the license granted to such person, said clerk shall enter at the appropriate place in the record so kept by him a memoranda of said fact, so that the records so kept by said clerk of the court shall correspond with the records of said board as kept by the secretary thereof. In case a person so licensed shall move into another county of this state, he or she shall procure from the clerk of the court a certified copy of said license, and file the same with the clerk of the district court in the county to which he or she shall so remove; said clerk shall file and enter the same with like effect as if the same was the original license.

§ 5. This effect shall not apply to commissioned surgeons of the United States Army or Navy, to physicians and surgeons in actual consultation from other states or territories, or to actual medical students practicing medicine under the direct supervision of a preceptor. Physicians whose practice extends into the territory of this state from an adjoining state or territory, shall comply with the provisions of this act, and shall record their certificates with the clerk of the county in this state, whose county seat is nearest the resident of said applicant.

§ 6. Any person practicing medicine or surgery within this state, without first having obtained the license herein provided for or contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not less than \$50 nor more than \$100, or by imprisonment in the county jail not less than ten nor more than ninety days, or both fine and imprisonment. Any person shall be regarded as practicing, within the meaning of this act, who shall append the letters "M. D." or "M. B." to his or her name, or prescribe, direct, or for a fee recommend for the use of any person any drug or medicine or other agency for the treatment, care or relief of any wound, fracture or bodily injury, infirmity or disease. Justices of the peace and the respective municipal courts

shall have jurisdiction over violations of the provisions of this act. It shall be the duty of the respective county attorneys to prosecute violations of this act.

§ 7. Chapter 125 of the General Laws of 1883 is hereby repealed. It is, however, provided that all persons licensed under said act shall be taken and considered as licensed under this act. And the secretary of the board herein provided for shall enter the names of such persons upon the register so kept by him as licensed physicians and surgeons, without application or fee upon the part of the person so licensed.

§ 8. This act shall take place and be in force from and after the 1st of July, 1887.

ALARMING HEMORRHAGE AFTER TONSILAR EXCISION.

Hemorrhage after the excision of the tonsils is so rare that the following case, reported by Dr. Clinton Wagner in the *New York Medical Journal* for April 16, 1887, deserves attention. In a previous paper, Dr. Wagner had stated that he had performed the operation 500 times without accident. Hemorrhage, however, does sometimes occur, and it is necessary to be on the lookout for it, as this case shows. The report is as follows :

“ Madame B. F., aged about 30, an opera singer by profession, consulted me for sore tonsils. I found the left tonsil greatly enlarged, and she informed me that it frequently became actually inflamed. I recommended excision. The gland was partly covered anteriorly by the column of the soft palate, and extended so far downward into the pharynx that I had great difficulty in encircling its inferior portion within the ring of the guillotine. Finally, I succeeded in removing almost the entire gland. A gush of blood followed, but apparently not greater in quantity than is usual after this operation. The bleeding increasing instead of lessening, I applied to the cut surface of the gland the persulphate of iron, which, failing, I resorted to compression, but I discovered afterward that it had not been exerted in the proper direction. Nearly an hour had elapsed since the operation, a large amount of blood had been lost, vomiting of blood, which had found its way into the stomach, ensued, and the patient was rapidly losing strength. I cleansed the parts thoroughly of clots of blood, but not finding the source of bleeding, I forced the tongue, by means of the depressor, upon the floor of the mouth as far as possible. In the space between the pillar of the soft palate, apparently springing

from the root of the tongue, I discovered an artery, of considerable size, bleeding freely, and with such force that the blood was projected over and beyond the depressed tongue to the opposite side of the mouth. The bleeding vessel, now located, was, without much difficulty, taken up with an artery-forceps and twisted, and all further hemorrhage was effectually controlled. I think the divided artery was either the tonsilar branch of the facial, or the largest of the branches of the ascending pharyngeal, both of which are given off from the external carotid."

THE WEDDING TRIP.

The French medical journals and some of the English have been lately calling attention to the evils of the wedding trip.

There are few physicians who will not recall many cases in which a girl, perfectly healthy till her marriage and a long wedding trip, is never healthy again. The number of women who date a life of chronic invalidism to a wedding trip is not small. So apparent have been these evils, that it is reported a custom has arisen by which the demands of fashion for a wedding trip shall be complied with, and yet the newly-married couple enjoy a period of repose and quiet all by themselves. The plan is to make ostensible arrangements for a trip, and even drive to the station, but in reality turn back to a hotel or some intimate friend's, in which, all alone by themselves, the newly-married couple shall begin their life journey.

Marriage is one of the epochs of life. It is peculiarly related to the physical well-being of both parties and to the unborn. To the young wife, there has been long and exhausting excitement in arranging for the event. To this is added an entrance upon physical relations utterly new to her. Surely this is quite enough to bear in the retirement of a quiet home, or away from inquiring acquaintances. Surely this is enough without the discomfort of railway travel, the exhaustion of hurrying from place to place, the excitement of new scenes and people, and the exposure to extremes of heat or cold, of storms, and all sorts of annoyances inseparable from long journeys.

We have often thought that physicians, by giving a word of friendly advice to such of their patients as chanced to be about to enter upon a married life, might be the means of saving such persons from future misery. Family physicians are the ones to reach these cases. True, they would have to combat social customs, but after all we think that in the end they would win.—*American Lancet.*

ANTIFEBRIN IN THE TREATMENT OF PHTHISIS.

In an interesting paper in *The Medical Record* for April 16, 1887, Dr. C. H. Cauldwell reported his experience with antifebrin in the treatment of consumption. His conclusions concerning its use are as follows:

1. Antifebrin is the best drug with which to control the chill and fever of phthisis. With it we can at once check these depressing symptoms.
2. It does not produce the unpleasant effects of quinine, salicylic acid, antipyrine, thallin or resorcin.
3. Chills, collapse, or semi-intoxication are not caused by it.
4. In many patients it induces sweating.
5. It diminishes the frequency of the pulse, and usually strengthens the heart's action.
6. Occasionally it produces cyanosis. This happened but twice in thirty cases.
7. It does not interfere with digestion, but on the contrary increases the appetite.
8. Even when the stomach is in an irritable condition, it can be retained.
9. It increases the secretion of urine in the majority of cases.
10. It tends to quiet the nervous system and produce a feeling of "well being" in the patients.

TUBERCULAR ULCERATION OF THE TONGUE: TREATMENT BY EUCALYPTOL AND LACTIC ACID.—Dr. Poncet, in the *Lyon Medical*, January, 1887, reports a case of a patient presenting tuberculosis of the right apex, similar ulcerations of the tongue, and digital ulcerations of the same nature. Tubercle bacilli were found in these latter. The patient has been under a course of treatment by eucalyptol and lactic acid (eighty per cent). The ulcerations of the fingers were dressed with lint dipped in eucalyptol. Twelve to fifteen days afterwards the wounds were nearly completely cicatrized: but this was only in appearance, since the skin was infiltrated with fungosities below the epidermic secretion. Dr. Poncet thinks that eucalyptol acts as a desiccator of the secretions, but there is no proof that it is a microbe destroyer. As to lactic acid used for the ulcerating of the tongue, it produced much pain, lasting for an hour after the application, but no appreciable amelioration of the condition.—*Journal of Laryngology and Rhinology.*

“ ‘COCA’ AS A CARDIAC TONIC.”

The New York *Medical Record* of February 26, 1887, gives an interesting article entitled, “Heart Strain and Weak Heart,” by Beverley Robinson, M. D. We extract the following (p. 238):

“On several occasions, when digitalis has proved to be useless or injurious, I have had very excellent results from caffeine or convallaria. Certainly, the latter drug is more easily tolerated by a sensitive stomach than digitalis is; and whenever the nervous supply of the heart is especially implicated, I believe that I secure more quieting effects from its employment. Among well-known cardiac tonics and stimulants for obtaining temporary good effects, at least, I know of no drug quite equal to coca. Given in the form of wine or fluid extract, it does much, at times, to restore the heart-muscle to its former tone. I have obtained the best effects from the use of Mariani’s Wine. From personal information given me by this reliable pharmacist, these results are attributable to the excellent quality of the coca leaves and of the wine which he uses in its manufacture.”

Editorial.

ANNUAL COMMENCEMENT OF NIAGARA UNIVERSITY.

MEETING OF ALUMNI ASSOCIATION—THE CONVOCATION—THE BANQUET.

The annual meeting of the Alumni Association and commencement exercises of Niagara University Medical Department was held at the college building on Ellicott street in this city. The building, which was erected three years ago, was in fine order, and many expressions of surprise were heard at the unusual neatness, “for a medical college.” The Board of Curators arrived promptly at 10 A. M., and organized.

There were present Drs. F. W. Ross and Henry Food, Elmira; Drs. Granger, W. W. Potter, M. Hartwig, C. A. Gould, Buffalo. It was learned that Dr. Banta, of Buffalo, Dr. Carroll,

of Rochester, and Dr. Gregory Boyle, of Syracuse, were unavoidably detained. At 11 A. M., the Alumni held its meeting; Dr. Wm. H. Heath, President, formerly a professor in this college, occupied the chair. Dr. Lewis, Secretary, and Dr. Murphy, First Vice-President, were at their posts. Dr. Heath delivered the President's address. He referred to the progress the college had made, complimented the faculty on the high standard of education maintained, reminded the Alumni of the high mark the faculty had placed for them, and hoped many would reach it, after which officers were elected as follows:

President, Dr. Floyd S. Crego; *First Vice-President*, Dr. E. J. Murphy; *Second Vice-President*, Dr. C. C. Fredericks; *Permanent Secretary*, Dr. George W. T. Lewis, corner Utica street and Linwood avenue; *Treasurer*, Dr. Henry D. Ingraham; *Executive Board*, Dr. Frank H. Potter, Buffalo; Dr. Simeon T. Clark, Lockport; Dr. Charles G. Stockton, Buffalo.

Dr. Stephen Smith, of New York, was elected an honorary member. Seven new names were, later in the day, added to the list of members—four from the present class, three from former classes.

There was a large number of medical men present at the afternoon session, the lower amphitheatre being more than filled. Dr. Simeon T. Clark delivered the address of welcome, which was couched in elegant and appropriate language. Dr. Floyd S. Crego followed with a paper on defective mental inhibition, with loss of consciousness and all recollection. He reviewed the functions of the brain and their mode of action; told how and when these parts lost their integrity; what could be disease of the brain, and what a condition simply. He proved there was a mental inhibition function, and hence a mental inhibition center. He described cases coming within his own practice and reported in the text-books where there was loss of control; where patients had committed crimes without apparent motive, and when, after the deed, not a trace of mental disturbance was apparent. He called the attention of the physicians to the necessity of obtaining correct histories of their patients. He

said lawyers and medical men who are called as medico-legal witnesses, who have to weigh the social and legal aspects of his opinions, are still chary of admitting loss of control or morbid impulse as an excuse for crime. He cited cases in which there was no difficulty in arriving at a conclusion, and again others where we were confronted with a problem which, in the light of our present knowledge of mental states, we were enabled to solve. He thought with constant study, and with the light of the recent developments and advances in cerebral localization, the time was not far distant when such cases could be explained and classified. The event of the day was the scholarly address of Dr. Stephen Smith, of New York, professor of surgery in the New York University Medical College, author of the standard work on operative surgery, "The Influence of Modern Surgery on Human Longevity." He started out with the remark that life on this planet is maintained only by the most persistent struggle against hostile, outside and inherent causes. On all sides the elements of generation were supplied in a prodigality which in itself proved how uncertain was the very act of securing existence at all. The summer and autumn air swarmed with germs seeking in vain for a soil in which to germinate. The human female was born with a store of 30,000 germs with which to propagate her kind, and with that number barely five on an average, even under the most favorable conditions, attained to actual existence as independent beings. Of this latter number, scarcely two lived to propagate their species. The great aim and purpose of all life was first to secure and second to maintain a foothold in the incongenial soil of this earth. Every individual was found desperately engaged in a struggle, first, to maintain its existence, and second, to increase its species. The severity and success of that struggle depended upon its environments and physical constitution. Generally speaking, the agencies tending most powerfully to abridge life were two-fold: 1, change in the environments unfavorable to the physiological necessities; and 2, the law of succession of organic life, according to which one form subsists upon an-

other. The speaker then referred to man's capacity for long life, the causes which abridge human life, and the value of the methods of practice of modern surgery in protecting man from agencies most fatal to his existence. The question of the length of life was said to be determined by the amount of vital endowment and vital expenditure. Speaking of the normal longevity of man, it was stated that the study of the development of the teeth and of the bones indicated one hundred years as the normal period of human existence. This scientific deduction was confirmed by observation and tradition, and might be accepted as the length of life to which every man has an inherent right to attain. Every death short of that period was due to unnatural or abnormal conditions. Yet the census showed upward of 492,000 deaths in this country in a single year, of whom more than 110,000 were under one year old, while a little less than half the total died under five years. Only 11,000 exceeded seventy, and only 1,300 reached ninety-five and upward. This result was ascribed not to hereditary causes, but to preventible disease, unhealthy surroundings and improper living.

Continuing, he said :

It is scarcely a score of years since the people of England proposed to the Prime Minister to meet an invasion of cholera by fastings and prayers. His reply began a new era in the history of preventive medicine. First, he said, destroy all kinds of sources of filth, and render your homes and their surroundings clean and pure, and then ask the Almighty to bless your efforts. The advice was followed, and cholera passed by England as harmlessly as did the angel of death the marked houses of the Israelites on the Passover night. This may be considered as the first official promulgation of the results of scientific investigations into the real sources of sickness and death among the people. The value of the discovery of the immediate nature of the zymoses to human longevity was chiefly in the direction of providing measures of prevention. They were proved to be preventable diseases, and the saving of life through the medium of sanitary measures has been incalculable. In communities where it has been estimated approximately, the reduction of sickness and death by these pestilences has been from one-third to one-half.

But this great discovery has not, until recently, had any decided influence upon the curative art. Indeed, so far as regards the modern practice of medicine, its influence has been most decided conservatism. The therapist has become less and less inclined to resort to positive medication, and more and

more disposed to put his trust in the resources of nature. The physician of the present day may well be represented as sitting mutely and reflectively at the bedside, with his finger upon his lips, studying the natural history of the disease, and guarding carefully against any complication, lest that history should be vitiated.

If, on the contrary, we turn to the other great department of the healing art, modern surgery, we can but be amazed at the inspiration which it has caught from the revelations of science in regard to the nature of zymotic diseases. The moment that the natural history of micro-organisms was discovered, the genius of surgery saw its opportunity. As a general, long encamped about the besieged city, suddenly rushes upon the citadel with huge clamor when he learns the clues that lead to it, so the surgeon of to-day, enlightened by science, assumes an aggressive attitude towards disease and boldly attacks it in its strongholds. And what daring he exhibits; what feats he daily accomplishes! Everywhere, and in every land, the air is full of startling rumors of the triumphs of surgery. The medical periodicals teem with reports of new operations, or old and formerly fatal operations now performed with uniform success. Not content with its former position as the handmaid of medicine, surgery is now dominant, and daily makes incursions into the domain of allied departments of practice. Already it has absorbed the entire field of gynecology, largely that of abdominal and hepatic affections and to-day it is making cautious explorations of lung and brain diseases. Where it will ultimately fix the limits and boundaries of its kingdom, no one at this date can predict.

It will be proper to notice, in this connection, the basis on which modern surgery has begun to rear the temple which will, in all time, commemorate its claims as the greatest conservative power of human health and longevity which has as yet appeared among the arts of men.

As has been stated, the discovery of the nature of zymotic diseases was at first useful only in proving that they were preventable by human efforts, rightly directed. Sanitary measures did reduce sickness and death rates, but the discovery did not materially aid the art of curing by the use of therapeutical remedies. It was not until the peculiar action of these micro-organisms in the living tissues became known, and the methods of destroying them were discovered, that it was made apparent that a better knowledge of zymotic diseases would avail materially in actual practice. This knowledge was the result of the long and patient investigations of Sir Joseph Lister, to whom mankind will be forever indebted as to its greatest benefactor. Mr. Lister discovered that micro-organisms can grow in the animal body, giving rise to a variety of diseases; some are fatal to most animals, as the bacillus of anthrax; others are only pathogenic in certain species of animals. The diseases caused by the propagation and growth of these bodies in the blood and tissues are grouped together under the term infective diseases. Of these there are two kinds, those in which the infection occurs from a wound or open surface—traumatic infective diseases—and those in which no wound is necessary and where the

pathogenic organisms are supposed to be able to enter the body through uninjured surfaces. It logically followed that infectious diseases, whether traumatic or idiopathic, could be prevented by protecting the system from the entrance of micro-organisms. This can be effected only by excluding them from the body. To accomplish this object, we may protect the system, or we may destroy the micro-organisms. This is antiseptic surgery, pure and simple. It is also the essence of sanitary science. Aseptic surgery is then based on the principle of the exclusion of micro-organisms from wounds. It is not treatment by spray, nor by gauze, nor by spray and gauze, nor by carbolic acid, but is any method of treatment which aims at, and succeeds in, excluding the causes of suppuration from wounds. And this result is now attained with the greatest certainty. Putrefactive suppuration is excluded from the category of wound complications of the surgeon who faithfully and intelligently employs the recognized means of excluding from wounds the germs of infection.

Let us apply these established facts to the subject under consideration—the influence of modern surgery upon longevity. This we can do only approximately, for as yet statistical results have not been sufficiently recorded. But we may gain a faint perception of the enormous aggregate of life-saving which will in the future accrue when antiseptics in surgery becomes universally adopted and practised, by reviewing some of its gathered fruits from the fields of observation now thoroughly cultivated.

In all of the older works on surgery, we are taught that inflammation is a necessary consequence of the exposure of the surfaces to the air. In contrasting subcutaneous wounds, Hunter remarks: The injuries of the first division, in which the parts do not communicate externally, seldom inflame; while those of the second commonly both inflame and suppurate." Paget remarks: "What Mr. Hunter said is true, especially in wounds in our own bodies; subcutaneous wounds seldom inflame; open wounds generally both inflame and suppurate." He adds: "In these sentences Mr. Hunter has embodied the principle on which is founded the whole practice of subcutaneous surgery; a principle of which, indeed, it seems hardly possible to exaggerate the importance. For, of the two injuries inflicted in a wound—the mechanical disturbance of the parts, and the exposure to the air of those that were covered—the exposure, if continued, is the worse. Both are apt to excite inflammation, but the exposure excites it most certainly, and in the worse form, *i. e.*, in the form which most delays the process of repair, and which is most apt to endanger life." Paget adds, "What is wanted for immediate union is, not a certain undefined, slight degree of inflammation, but the complete absence of inflammation." In former times, Paget states that "after the majority of such wounds as are made in surgical practice, changes ensue, both local and constitutional, which are not necessary parts of the healing process, but rather hindrance to it."

The amount of sickness and the loss of life from wounds which suppurated prior to the antiseptic period, cannot be estimated. If we admit the truth of the assertion of those eminent authorities, inflammation and suppuration, in

forms "most apt to endanger life," were the rule in open wounds, which comprise, always, nearly the entire list. Suppuration in wounds, we now know, involves the liability to exhaustion, erysipelas, hectic fever, septicæmia, pyæmia, abscesses, sloughing, gangrene, phagedena, waxy degeneration. More exactly, of 100 wounds which did not involve important parts, 95 suppurated; of the latter number, 23 were accompanied by abscesses; 20 by septicæmia; 5 by pyæmia. Death occurred as a result of suppuration in 15 cases.

Under antiseptic treatment, putrefactive suppuration of wounds is practically an impossibility. Every surgeon who thoroughly understands and fully practices antisepsis, knows that suppuration in a wound under his care shows neglect in the application of the preventive measure. Bilhatte says that "Failure in the treatment of wounds at a surgical clinic, systematically carried on, has become as rare as accidents on a well-managed railroad." Practically, then, suppuration may be excluded from wounds. With this postulate, let us examine more specifically into the results of antiseptic surgery applied under various conditions.

Compound fractures, which do not require immediate amputation, were spoken of by older surgeons as beset with complications, as erysipelas, pyæmia, hectic, exhausting suppuration, necrosis, and viscous position of the broken portions of bone—their management demanding constant and untiring attention to details, etc. And even this statement but faintly describes to the surgeon of that period his labors and anxieties. But now all is changed. Instead of being the objectionable and proscribed cases of the ward, they belong to the more interesting class of accidents. The wound once antiseptically cleansed and antiseptically dressed gives no further trouble. Amputation for compound fractures was very frequent with older surgeons, as compared with the present. In one year, (1851,) twenty amputations were performed in a large hospital for these injuries. In 1886, amputation is rarely performed for these fractures.

He then took up the results of many surgical operations under the old, now under the modern, surgical methods. As to the operations on the uterus, he said:

Cancer of the uterus was formerly a fatal disease. It has been stated that "The death rate from cancer has increased during the last ten years; that three-fourths of all cancers are among women; that one-half of all cancers are cancers of the uterus, and that cancer of the uterus comprises, in Berlin, from one-fourth to one-third of all gynecological complaints. This increased mortality, with the comparatively greater frequency of the diseases among women, and its predilection for the uterine tissues, make extirpation of the uterus for cancer a subject of superior importance at the present time." The success of extirpation has progressively increased during the last five years. In 1880, sixty-three per cent. of all of the operations recovered, while in 1885, the recoveries had risen to seventy-six per cent. of all of the reported operations. But in the hands of the more experienced operators, the recoveries have equaled the more simple operations. For example, Fritsch had ninety-two per cent. of recoveries in

twenty-four consecutive cases, and Martin had ninety-one per cent. of recoveries in fifty-five consecutive cases. Finally, Staude has had no death in sixteen consecutive cases. Thus the climax of complete success has been finally reached in one of the most fatal diseases of women.

Like all malignant diseases, cancer of the uterus is liable to return after extirpation of the organ, but the frequency of return is apparently diminishing. Of those cases which have been followed, twenty per cent. were known to have been well at the end of eighteen months. It is believed that recurrence is most general within the first year of the operation; hence, cases which remain well at the end of eighteen months or two years are commonly considered cured. These figures would, therefore, give a clear total gain of life in cancer of the uterus of twenty per cent. of all cases of extirpation which survive the operation; and as the mortality is but eight to ten per cent. in the hands of the best operators, twenty per cent. of complete recoveries may be set down as the degree of success at present attained.

In conclusion, it was stated that human longevity was yet greatly to be extended in this country: (1) through the influences of civilization, which is rendering life free from excessive vital expenditure; (2) through the universal administration of sanitary laws, which will largely prevent foreign and domestic pestilence; (3) through the direct power of antiseptic surgery to remove or destroy the prime factors of the larger number of human maladies.

This brief and imperfect synopsis does not do credit to his masterly effort, at the conclusion of which the speaker received a perfect ovation from those present.

Dr. B. H. Daggett, of Buffalo, exhibited for the first time in Western New York an apparatus by which gaseous enemata were given for the relief of consumption. He exhibited a patient who had taken the gas three days, who was greatly benefited. He presented a report, which appears in this number of the JOURNAL.

Dr. Henry D. Ingraham presented a paper on intubation of the larynx, but owing to the lateness of the hour it was read by title. It will appear in the next issue of the JOURNAL.

Dr. F. H. Potter presented a paper which appears in this number of the JOURNAL.

THE COMMENCEMENT.

The commencement exercises were held in Association hall, which was filled with a large audience. Wahle's orchestra

occupied a conspicuous place in the gallery and enlivened the proceedings. On the platform, which was tastefully decorated with flowers and potted plants, were the Rt. Rev. S. V. Ryan, Chancellor of the University; the Rev. P. V. Kavanaugh, President of the University; the Rev. Father Kircher, Vice-President of the University. The members of the faculty were also present, wearing their university gowns and hoods.

Bishop Ryan, in opening the proceedings, said it was very gratifying to him to be present and to know that those upon whom degrees were to be conferred were worthy of the honor and well prepared for the grave duties and responsibilities devolving upon them. He knew of no profession that stood higher in the estimation of the community than the medical profession. He congratulated the faculty on the success that had attended their labors and on the brightness of the prospects of the university with which they were identified. It spoke well, he thought, for the capacity of the graduates that they had not only been able to pass through the strict examination of the faculty, but also to pass the ordeal of examination by distinguished physicians from different parts of the country. The Right Reverend speaker also referred to the organization of a legal department, and the probability of a college dentistry being established in the near future as a branch of their university. He trusted that all would work harmoniously for the general good of the society. It was in no spirit of rivalry that they went about this work, but for the higher education of those who were to come after them, and he had no doubt they would all try to honorably discharge the duties expected of them. He congratulated the graduates and professors on the good showing presented.

The candidates for the degree of M. D. were: Charles Ellsworth Congdon, Middleport, N. Y.; David Lawrence Redmond, Rochester, N. Y.; Lawrence George Hanley, Mt. Ansonia, Conn.; Gilbert Knapp Ellis, Clayton, N. Y.

The manner of conferring degrees at this institution is by "hooding," in pursuance of an ancient rite observed in many of

the English universities. It is conducted as follows: The candidates, wearing their long black gowns, are introduced by a graduate to the Chancellor of the University, with the following words:

Insignissime Cancellarie.

Presento tibi huncce scholarum in facultate medicinæ ut admittatur in gradum doctoris medicina testorque eum quoad omnia quae statuta requirunt aptum et idoneum esse.

Each candidate then kneels before the Chancellor, who holds the candidate's hands in his and pronounces the following formula, during which the candidate is "hooded" by another graduate who acts as a beadle:

Ad profectum reipublicae ego, auctoritate mea et totius universitatis admitto te ad gradum doctoris in medicina licentiamque tibi do omnia ea facienda quae ad illum gradum pertinent.

Instead of the Hippocratic oath, a special formula is used, covering all the responsibilities of the profession, taking "Religio, mores, cultura" as their motto. The ceremony of conferring of degrees was performed amid applause.

Prof. A. R. Davidson, of the faculty, delivered the address to the graduates, which is found in this number of the JOURNAL.

The Rev. Dr. Dodge, President of Madison University, Hamilton, N. Y., delivered a stirring address, in the course of which he characterized the graduates as specialists. First and foremost, they were to succeed in their profession, and the man endowed with original aptitude for that profession was called of God. They should make their profession the center of their thought, of their feeling, and of their intellectual activity. Culture was governed largely by environments, by taste, and by the means at command, but first and foremost, they should resolve that, with the help of God, they would succeed. They should carry into their calling all their enthusiasm, rise to the level of their possibilities, and carry the soul-life into their work. It was true that their calling would be used as a means of support, but there were other motives; there were the inspirations of the intelligence and the heart, and the blending of these twain gave enthusiasm. The man who would reach the highest posi-

tion in his profession would be he who would be best equipped, and on whose character people would rely with unfaltering trust. While they were specialists, they were not to be simply and solely specialists, confined within the narrow boundaries of their calling and vocation. The essential elements of to-day were, first, central convictions, and second, breadth of apprehension. The radius of their central convictions need not be narrow. They were to be leaders in society, but not dictators. The true leader he defined to be the man who embodied the best thought, the best sentiment, the noblest purpose in those whom he leads, presenting to men a revelation of themselves. High leadership was associated with morals and religion. In conclusion, Dr. Dodge took up an idea suggested by the remarks of the preceding speaker, and brought out with striking clearness the littleness of science and its inadequacy to solve the problem of life. His last words to the graduates were, "Be loyal to yourselves and what is deepest in you, and you will be loyal to God, who is above you, and you will be leaders in society."

THE BANQUET.

The commencement exercises over, the Faculty, Alumni, graduates, and invited guests, to the number of seventy, repaired to the Genesee, where an elaborate banquet was spread in the grand dining hall for their appreciative consumption. As is usual on such occasions, the final act in the drama of that day, which is an epoch in the lives of the graduates, proved the most enjoyable to the participants. The gastronomic portion of the feast began at 10.30, and lasted until midnight.

The edibles cleared away, the orators began. Dr. Floyd S. Crego acted as toast-master, the sentiments and respondents thereto being as follows:

"Niagara University"—Rev. Father Kavanaugh, of Niagara Falls.

"The Medical Faculty"—Dr. S. T. Clark, of Lockport.

"The Clergy"—Rev. I. N. Dalby.

"The Law"—Adelbert C. Moot.

"Dentistry"—Dr. F. E. Howard.

"Regents of the State of New York"—Hon. William Cobb, of Lockport.

"The Maternity Hospital"—Dr. Fredericks.

"The College"—Hon. T. V. Welch, of Niagara Falls.

"The Alumni of Niagara University"—Dr. E. J. Murphy.

"The Graduates"—Dr. L. G. Hanley.

The responses were all able and eloquent, some of the speeches brimming over with that rich humor which is so favorably received on occasions of this character. Musical interspersions were given by the university quartette, some of the songs being composed for the occasion.

STATE CONTROL OF MEDICAL EDUCATION.

The medical colleges throughout the United States have generally completed their courses of instruction and a vast number of young men have been turned loose upon the community, armed with the legal right to practice medicine.

There is not a thinking man in the medical profession who does not recognize that the majority of these graduates are insufficiently educated and generally wanting in those high qualities which should be demanded of the candidate for the degree of Doctor of Medicine.

Neither the community nor the profession is benefited by this deluge of poorly-prepared doctors, the only gainers being the medical men who run the colleges as a business investment, but are, at the same time, blind to their duties to that profession which they are supposed to adorn. The best minds in the profession have for years past been outspoken in condemning the iniquities of our present system of medical education, and the JOURNAL has urged with all boldness the application of the only effective remedy, namely, the complete separation of the unfortunate, unwise and debasing co-partnership of the educating and licensing powers. Individual universities like Pennsylvania, Harvard, Yale, Niagara and others may bravely and steadfastly uphold the principles of reform in medical education, but their

efforts are unavailing as long as the general law does not interfere to protect the public from the cupidity of those who prostitute their office as teachers for pecuniary advantage. In an editorial on this subject, the *Medical Standard* says :

" There are colleges of deservedly high reputation ; others of fair reputation, and still others whose record is the degradation of American medicine and a crime against the American public. The graduates of these schools may be either educated gentlemen, mediocre pretenders, or arrant imposters, yet it has been the custom of most medical practice acts to recognize no distinction, to crush all to a common level, and to endow all with a certificate of competency and authority by the State. It is surprising, in view of this monstrous travesty of law, this enforced degradation of the competent to the legal level of the imposter and quack, this discrimination in effect against schools conducted upon reputable principles, that our educational institutions of acknowledged merit should be relatively so few, and that there should be such a multiplicity of inferior or fraudulent schools? Instead of rewarding the worthy, our system of laws is in effect calculated to discourage and repress them ; instead of discountenancing collegiate schemes for personal advertising and personal gain at the sacrifice of professional manhood and the most sacred of obligations to the public, these laws have fostered and welcomed them.

" It is time that medical institutions, conducted primarily for pecuniary profit, were brought to a halt, and the single effective method of doing this is to divest all college diplomas of any legal significance whatever, and lodge all power over registration in the State, represented by a competent examining board."

Four years ago, the JOURNAL advocated the passage of such a law in this State, and by an almost unanimous vote of the Erie County Society, seconded by like action by the majority of the county medical societies of the State, our legislators were asked to pass a bill which would in effect absolutely divorce the educational from the licensing powers. This was, however, strongly opposed by many of the medical colleges and by other influ-

ences, backed by the immense wealth of the patent medicine concerns, and failed to become a law. We rejoice, however, to note that the State of Minnesota has taken the lead in this great reform. We publish upon another page the full text of the law which goes into effect July 1st, and a comparison of its provisions will show them to be almost identical as to effect with the proposed law originating with the Erie County Society in 1883. The principle adopted by the State of Minnesota must, sooner or later, extend to every State in the Union. North Carolina and Virginia have already taken action upon it, and we trust the Empire State may also be among the first in establishing the same safeguard for her citizens. There is not a physician in the United States, (excepting only a few college professors,) who is not personally interested in the furtherance of this movement. The great mass of the medical profession are unable to obtain from their practice an income sufficient to keep their families supplied with the comforts of life, and, at the same time, to keep themselves provided with the latest books and journals and other necessities for the best fulfillment of their responsibilities to their patients; and they always will be poor so long as the supply of doctors *increases three times as fast* as the population of the land.

THE Virginia State Board of Medical Examiners demand that candidates should attain a standard of seventy-five per cent. in their examinations to obtain a license to practice. Nineteen applicants lately appeared before the Board, and but seven passed satisfactory examinations. Twelve applicants were rejected. Each of the candidates was fresh from college with his diploma.

THE Nashville *Medical News*, the *Medical Standard* of Chicago, the *Southwestern Medical Gazette*, Louisville,—

“Spring hangs her infant blossoms on the trees,
Rocked in the cradle of the western breeze;”

and the latest blossoms on the old tree of medical journalism are the above-named journals. They are all heartily welcomed to the list of our exchanges, as they give evidence of editorial ability and earnest purpose to advance the best interests of the profession.

WE desire to correct a very plain mistake in the heading of the article published in the April number, from the pen of the senior editor of this JOURNAL. The subject is "Intra-Uterine and Vaginal *Irrigation*," instead of *Irritation*. Our proof-reader is chargeable with this error. In the hurry of getting out a monthly journal, mistakes will happen and our readers will overlook them.

THE death of Dr. Wm. Ring, of this city, which occurred last week, was keenly felt by all the profession. The Erie County Medical Society met to express their sorrow at his so sudden death. A full report of the meeting, as well as a history of the doctor, will appear in our next issue.

Reviews.

The Year Book of Treatment for 1886. A critical review for practitioners of medicine and surgery. Philadelphia: Lea Brothers. 1887.

This book, of about 300 pages, aims to give one a complete account of all the more important advances made in the treatment of disease, and also to furnish a review of the same by competent authorities. The contributors are all English, but they are most of them men eminent in the profession. They have sifted the medical literature of all countries for all matters relating to treatment that have been published during the year ending September 30, 1886. The work seems to us highly valuable, and it is full of suggestions and information to the practitioner.

A Compend of Obstetrics. Especially adapted to the use of medical students and physicians. By HENRY G. LANDIS, A. M., M. D. Third edition, thoroughly revised, with new illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1887.

This compend is one of a series of compends designed to assist students in preparing for examinations, bringing out, in a short compass, the more important points or facts in the special subject of which it treats. We think such works can be of essential service, and the author has judiciously fulfilled the object for which the work was undertaken.



VOL. XXVI.

JUNE, 1887.

No. 11

Original Communications.

*THE CAUSES AND PREVENTION OF INFANTILE DIARRHOEAL DISEASES.**

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Sanitary Inspector of the Board of Health, Buffalo, N. Y.

Jules Simon has said that we add more to the strength and prosperity of a nation by the prevention of disease and death than by the conquest of foreign territory. It is a low death-rate rather than a high birth-rate which produces a rapid increase in population. It requires France 192 years to double her population. In Prussia this is accomplished in 54 years; in England in 52 years, while Buffalo by the same method of computation will double her population from natural growth every 69 years.

Preventive medicine has made remarkable progress during the past century. Sickness has been greatly reduced, death has been robbed of a host of victims, and the average duration of life has been increased at least twenty per cent. Jenner by his immortal discovery has saved thousands from death, blindness and disfiguration. Ferran, Freire and Pasteur promise us immunity from Asiatic cholera, yellow fever and rabies. We may even hope to find a clue to the causes and cure of that dread

*Read before the Buffalo Medical and Surgical Association, June, 1887.

malady, consumption. It is to a small field in the department of preventive medicine that I wish to invite your attention this evening, promising you no new discoveries, but simply applying, as far as possible, old facts to a new locality—our own city.

My subject is "The Causes and Prevention of the Diarrhœal Disease of Infants," and it is my desire to point out the local sources of these affections and trace their relation to the mortality of infants in general.

No city in the United States has more accurate vital statistics than Buffalo. Our death reports are almost absolutely correct, while the birth returns are less defective than in most other American cities. We may therefore safely employ these statistics as the basis of some of our investigations.

During the past six years, from 1881 to 1886 inclusive, 32,769 births have been reported to the Registrar of Vital Statistics, and during the same period 10,714 deaths have occurred among those under five years of age, showing that about one-third of all children born die before reaching the sixth year of life. Moreover, 6,684, or 20 per cent. of all born, died during the first year of life; 2,041, or 12 1·7 per cent. of the children one year old, died in the second year; 946, or 6 2·10 per cent. of the children two years old, died in the third year; 550, or 4 per cent. of the children three years old, died in the fourth year, and 479, or 3 ½ per cent. of the children in the fifth year, died annually.

If we compare this death-rate with that of European cities, we will be forced to the conclusion that Buffalo is a remarkably healthy place for babies, if not the healthiest city of its size, in the world. We have only to compare our death-rate for children under one year of age, 20 per cent., with the rates given by Ecklund for several cities of Europe in 1872 to observe the remarkable difference:

City.	Deaths per 100 under 1 Year.	City.	Deaths per 100 under 1 Year.
Paris, .	30·8	Vienna, . . .	42·8
St. Petersburg, .	32·5	London, . . .	43 5
Milan, . . .	32·5	Dresden, . . .	46·3
Prague, . . .	32 8	Venice, . . .	46 5

City.	Deaths per 100 under 1 Year.	City.	Deaths per 100 under 1 Year.
Turin, .	32.9	Hamburg, . . .	48.4
Marseilles, .	35.3	Rotterdam, . . .	53.6
Naples, . . .	36.4	Munich, . . .	55.5
Rome, . . .	40.4	Stuttgart, . . .	56.4
Moscow, . . .	40.4	Berlin, . . .	58.1

The average infant mortality for all Europe is 25.4 per cent. In the large cities of the United States with the exception of Buffalo—that is, in Boston, New York, Philadelphia, Chicago and St. Louis—the infant mortality is said to be fifty per cent, which is manifestly too great, as the birth returns in all these places are very defective. In the various departments of France where vital statistics are accurately recorded, it has been found that the mortality of infants during the first year of life varies from five per cent in the Department du Rhone to eighty-five per cent. in the Department du Loire Inferior, the average for all France being according to Monot seventeen and a half per cent. France has the lowest infant mortality on the Continent, a fact which is in part due to the low birth-rate. Great pains are taken with the few children born, and as a consequence the mortality is low; the Germans have a birth rate nearly double that of the French, but the mortality is enormously increased. A sarcastic French writer has said that “Germans like hogs are very prolific animals, and their offspring are likewise liable to die young.”

French sanitarians are in the habit of considering seventeen and a-half per cent. as the normal rate of infant mortality, but Monot maintains that five per cent. is much nearer what the normal should be, as the death-rate is found to be as low as this where the best sanitary conditions are observed. In other words he claims that the French people through carelessness and ignorance destroy one-eighth of their infants during the first year of life, and we of Buffalo lose one-sixth of our infants for the same reasons.

With the hot sultry days of summer comes a slaughter of the innocents in all northern American cities far greater than

that which Herod ordered, and this excessive mortality is due largely to diarrhoeal affections, a class of diseases regarded as preventible by the great majority of sanitarians. The following table will show the number of deaths from diarrhoeal diseases in Buffalo occurring among those under five years of age during the past six years, and the percentage of all deaths for the same time due to these causes :

Year.	Deaths from Diarrhoeal Disease under 1 year.	From 1 to 2 years.	From 2 to 3 years.	From 3 to 4 years.	From 4 to 5 years.	Total from Diarrhoeal Diseases under 5 years.	Per cent. of Deaths all under 5 years from Diarrhoea.	Total Deaths under 5 years from all causes.	
1881..	291	149	38	11	11	500	27	1,851	
1882..	311	76	9	2	6	407	20½	1,973	
1883..	308	58	9	2	2	379	26	1,475	
1884..	336	111	25	12	7	491	26	1,890	
1885..	344	71	12	5	2	434	25	1,697	
1886..	335	75	11	3	1	425	23½	1,828	
Total.	1925	540	140	35	29	2,633	24½	10,714	45.6 of all deaths
Per ct	73	20½	10	1⅓	1⅙	100			

This table shows that there have been 2,633 deaths from diarrhoeal diseases among young children in this city during the past six years, and that nearly one-fourth (24½ per cent.) of all deaths among children are due to these maladies.

To discuss the etiology of infantile diarrhoeal diseases in our climate is to discuss the causes of infant mortality in general. Whatever diminishes the strength and vigor of the system tends to produce intestinal disease in summer. There are a host of causes, some of which act in a very indirect manner; but no specific cause has yet been discovered. But for the sake of a classification we may divide the factors which we are about to consider into five classes: developmental, social, meteorological, sanitary and dietetic.

I. DEVELOPMENTAL CAUSES.

1. *Age*.—To speak of age and sex as causes of a disease is manifestly illogical, and yet these conditions have close relations

to the causation of many affections. In infancy there is the greatest activity of the assimilative functions; the child attains nearly half its mature weight and stature during the first three years of life. The younger the child the greater the activity of nutrition and the less the power to resist disease. There are certain peculiarities in the digestive organs of infants which deserve a passing mention. The glycogenic ferments are not found in the saliva and pancreatic fluids until the first teeth appear, pepsin is secreted in but small quantities by the gastric glands, and the liver does not properly convert the peptones, uric acid being formed and eliminated instead of urea. Prof. Owen has shown that in the early stages of human life the functions of many organs resemble those of the lower animals. Birds and reptiles excrete uric acid instead of urea normally, owing to certain peculiarities in their hepatic organs. In the infant, the syphilitic child and the gouty man the same peculiarity is observed, and a carefully restricted diet is required. During the first two months of life the sweat glands possess but little if any functional activity. By regulating cutaneous evaporation these organs preserve the normal temperature of the body, but since their functions are so defective in infancy, sudden changes in the temperature of the surrounding atmosphere will affect the normal heat of the blood. When fluids cannot be eliminated by the skin for the reduction of temperature, copious discharges from the bowels are excited, a phenomenon which is usually attended with a loss of bodily heat.

Of the 2,633 deaths from diarrhoeal diseases among children which have been reported during the past six years, 73 per cent. have been under 1 year of age, 20½ per cent. between 1 and 2 years, 4 per cent. between 2 and 3 years, 1½ per cent. between 3 and 4 years, and 1 per cent. between 4 and 5 years of age.

Furthermore, 29 per cent. of all deaths among children under 1 year of age in Buffalo are due to diarrhoeal diseases; 26½ per cent. of those between 1 and 2 years of age, 10 per cent. of those between 2 and 3 years, 6½ per cent. of those between 3 and 4 years, and 6¼ of those between 4 and 5 years of age are

due to the same causes, showing that not only does the mortality from these affections but also the relative proportion of all deaths attributable to them vary inversely with the age.

Dr. J. Lewis Smith observed that the mortality from diarrhœal diseases among infants from 6 to 12 months of age was double that of children under six months of age. This increased mortality during the latter half of the first year is attributed by some writers to the occurrence of dentition at this time; but the comparative immunity observed during the first six months of life is largely due to the fact that more are nursed at the mother's breast, and it is not all demonstrated that they are less liable to intestinal diseases, other circumstances being equal.

2. *Sex.*—The male child grows more rapidly than the female. The metamorphosis of tissues being greater, the liability to disease is proportionately increased and the power of resistance diminished. Nature has very kindly provided in part for this excess of male deaths by creating an excess of male births. But even with her best efforts a large number of our females must be doomed to perpetual maidenhood. During the past six years there have been 16,953 male births reported to 15,650 female births, showing that about 108 males are born to every 100 females. On the other hand, 118 males have died to every 100 females, and this great excess in the male death-rate is chiefly among children. Of the 2,633 deaths from diarrhœal diseases among children in Buffalo, 1,412 have been males and 1,221 females, showing that 115½ male children die of these affections to every 100 females, an excess of male deaths nearly double the excess of male births. Bertillon has discovered that in Paris 121 males die under one year of age to 100 females, and that this proportion is about the same in other European cities. In other words, he claims that one fifth of all boys born die in the first year of life, while but one sixth of the girls die during the same period. In Buenos Ayres where diarrhœal diseases are quite as prevalent as in Buffalo, there is about the same difference in the death-rate of the sexes from these affections as in our city.

II. SOCIAL CAUSES.

Wealth.—Diarrhoeal affections are pre-eminently diseases of the poor. Ignorance and filth are the usual accompaniments of poverty, and as a consequence all prophylactic measures are disregarded. Bouchut observed that the infant mortality in the eleventh, twelfth and seventeenth arrondissements of Paris, occupied principally by the poor, was more than double that of the children found in the sections occupied by those in comfortable circumstances. The same fact has been observed by Dr. J. L. Smith in New York. In some of the localities occupied by the poor, when acting as a sanitary inspector, he found cases of diarrhoea among the children in almost every house. In Buffalo the death-rate from diarrhoeal diseases in the Fifth Ward, where a large number of Poles are found, is 4.7 per 1,000, nearly four times greater than that of the Ninth Ward, occupied by a wealthier class.

Joseph Lefort has studied the mortality of infants in industrial centres. In many of the factories of France and England, where women are employed, the children are left in crèches during the day, while the mothers are at work. In the crèche the children were dry-nursed, and as the women were in the habit of leaving their infants there on the ninth day after confinement, the mortality was frightful, in some places reaching eighty-three per cent. But a very simple remedy was discovered, which reduced this mortality in a remarkable manner. A fund was established by the proprietor of the Mulhouse Factory, to support the mothers at home until the children were seven weeks of age. In this manner the mortality was reduced to thirty per cent., and even less in some towns. We also have our crèche and working women, but the social relations of employers and the working classes are such in this country that any control of the sort just described would be impossible.

2. *Nationality.*—As a general rule, those nationalities having the highest birth-rate have the highest infant mortality and highest death-rate from diarrhoeal affections. Among the Poles

and Germans diarrhœal affections are common; they are moderately frequent among English, Irish and Italians, but rare among French and Scotch. It was at one time supposed that races coming from a cold climate to America were more liable to diarrhœal affections than those who emigrate from hot countries, but statistics prove that this is not strictly true, for the Italians are not exempt from these diseases, nor are the Scotch from the north countries especially liable to them.

3. *Legitimacy*.—In France 9 per cent. of all the children born are illegitimate, while in Paris even 30 per cent. are born out of wedlock. Chauffard has made a careful study of the mortality of illegitimate children, and finds that it is about 100 per cent. greater than that of the legitimate. In Buffalo not 2 per cent. of the children are born out of wedlock, but the mortality among these is immense, as the records of lying-in asylums and "baby farms" would show. It is customary in this country to place these unfortunate babies with some woman who agrees to care for them for two or three dollars per week. For a hundred dollars many will stipulate to provide for the infant permanently, but in the great majority of cases the babies die of marasmus or enteritis before many months have elapsed. In France a bureau of wet nurses is provided by the public to care for these children. They are generally taken outside of the cities, but as each nurse cares for two or three babies, you may imagine that the wet-nursing is of a very defective character. Nevertheless, the mortality is much less than in our foundling homes where dry-nursing is the rule.

III. METEOROLOGICAL CAUSES.

The diarrhœal diseases of children in our latitude are confined almost entirely to the hot months, ending with the first cold days of autumn. The epidemic begins in Buffalo about the 1st of July—fully two weeks later than in New York—and disappears about the middle of October. The youngest children are first affected, and if the atmospheric and other condi-

tions are favorable those of a more advanced age are attacked; the disease in these latter cases being more of a dysenteric than choleric form character. The maximum mortality of infants from diarrhoeal diseases is reached in August. The maximum from dysentery is attained a month later, in September. It is, indeed, a remarkable fact that in Buffalo dysentery makes its appearance and passes away about one month after the choleric form diarrhoea of children. In the following table is given the mortality from diarrhoeal diseases by months for the six years, 1881 to 1886 inclusive, with the percentage of deaths belonging to each month:

Months	1881.	1882.	1883.	1884.	1885.	1886.	Total.	Per cent. of all.
January.....	0	1	4	5	0	6	16	
February.....	0	3	2	3	3	2	13	$\frac{1}{2}$
March.....	0	4	7	4	4	1	20	
April.....	0	2	0	0	2	0	4	$\frac{1}{6}$
May.....	5	6	1	5	9	5	31	
June.....	9	9	9	16	5	7	55	2
July.....	110	51	68	58	112	149	548	21
August.....	121	171	169	193	142	123	919	35
September.....	151	130	73	135	131	108	728	27
October.....	93	26	35	64	26	15	259	$9\frac{1}{2}$
November.....	9	1	9	8	3	5	35	$1\frac{1}{2}$
December....	2	0	2	5	6	4	19	
Total.....	500	404	373	491	434	425	2,633	

The above table shows that these diseases belong almost exclusively to the third quarter of the year. They make their appearance about the first of June, but are not of a severe type until July, when the severity and frequency of the attacks rapidly increase until the maximum mortality is reached during the first few days of August.

1. *Temperature*.—Excessive heat is a prominent cause of infantile diarrhoea. Beginning in May, the curve of mortality from cholera infantum corresponds almost exactly with curve of mean temperature. Furthermore, it has been observed that the mortality curve of the summer diarrhoea of infants consists of recurring waves corresponding with the hot waves which pass over our country in the summer months. This has been demonstrated by the researches of Dr. S. Busey of Washington, in

connection with the late chief signal officer, Gen. Myer. This fact has been observed in Buffalo, as shown in a paper read before the Buffalo Medical Association in 1885. But it is evidently not the high temperature alone which causes the increased mortality from diarrhœal diseases in summer. If this were the case we would find that the mortality would increase as we travel toward the equator, and that the mortality would be nearly as great in the country as in the city. New Orleans has a lower infant mortality in summer than Philadelphia, Chicago or Boston. In France the infant mortality is often higher in winter than in summer. Milne Edwards has made numerous experiments showing that cold is more injurious than heat to the health of young animals. August has been uniformly the hottest month in Buffalo, but in 1881 the greatest mortality from diarrhœal diseases occurred in September, and in 1886 in July. Sudden changes of temperature are more important in the production of diarrhœal diseases than a uniform high temperature as the investigations of Dr. Busey have shown.

This writer has made a careful study of the subject in Washington, and has arrived at the following conclusions:

(1) The month of July is the hottest and sickliest month of the year, most conducive to bowel affections and most fatal to children under five years of age.

(2) The epidemics of the bowel affections of children incident to the summer season have their beginning nearly simultaneously with the first exacerbation of heat which usually occurs in the latter half of June; the maximum daily mortalities frequently corresponding with the maximum temperatures which occur in periods of three or more days at longer or shorter intervals during the summer months.

(3) With the usual lowering of temperature and the absence of excessive heat periods which occur after August, the daily mortality declines.

(4) The detrimental influence of summer temperature is intensified by sudden and acute elevations and falls.

(5) Children under one year of age are most numerous and seriously affected by the temperature influence.

2. *Humidity*.—Paul Bert has shown that more carbon dioxide is eliminated in moist air than in dry; consequently there is greater activity of tissue changes in moist than in dry weather. Furthermore moist air is a better carrier of zymotic poisons than dry. The dry Harmattan wind which blows from the interior of Africa puts an end to all zymotic diseases, even small pox.

Now, although we have the highest mortality from diarrhoeal diseases in the month when the average relative humidity is lowest, at the same time the absolute humidity and the hygrometric fluctuation is greatest. In hot weather children as well as adults are usually attacked with bowel complaints at night when the relative humidity is high. It is a common observation that cholera infantum is most fatal on hot, moist days. The moisture of the air diminishes the radiation of heat by evaporation, and at the same time increases the production of heat in the body, as is shown by the increased elimination of carbonic acid. The facilities for a careful study of the relations of humidity to disease are very imperfect. But it is quite probable that excessive moisture in the air prevents the rapid diffusion of emanations from the soil, which in hot weather in the city are of a dangerous character. It has been observed in New York and Baltimore that cholera infantum was extremely common and fatal among the children occupying basements, and it has been proposed to enact laws prohibiting landlords from renting basements for dwelling purposes.

3. *Rainfall*.—Rain is a great purifier of the air and soil. The great epidemics of the middle ages almost uniformly followed droughts. The highest death-rate in England during the past twenty-five years occurred in 1864, the year in which the rainfall was lowest. The highest mortality from diarrhoeal diseases in Buffalo occurred in 1881, the year in which there was a drought. During six weeks in August and September less than a quarter of an inch of rain fell, the atmosphere became hazy, vegetation was withered and dry, the soil was parched to a depth of five feet, the wells were dried, and in the thickly-

settled unsewered districts a disagreeable odor was everywhere observed. The infant mortality from diarrhoeal diseases increased with the drought; in June there were nine deaths, July 110, August 121, September 151, October 93. Moreover, as the drought increased, the bowel affections assumed more of a dysenteric character. A fact particularly noticeable was that it was the children of more than one year of age who were chiefly affected by the drought. The mortality from diarrhoeal diseases among those over one year of age was fifty per cent. higher than in any other year, whereas the mortality of those under one year of age was not increased. We may conclude then:

(1) That a drought in hot weather will increase the mortality from diarrhoeal diseases.

(2) That the increased mortality is found chiefly among those over one year of age.

(3) That the diarrhoeal disease occurring during a drought is liable to be of a dysenteric character.

(4) That the increased mortality is most marked in localities where sewerage is defective and the water supply derived from wells, as is shown by the fact that dysentery was most prevalent in the unimproved sections of the city.

4. *Velocity of wind.*—The movement of the air currents is more closely related to the prevalence of diarrhoeal affections than is usually supposed. Running water will purify itself; in like manner the air is purified by diffusing and oxidising the injurious substances held in suspension. In Buffalo the maximum mortality from diarrhoeal diseases occurs in the month when the movement of the winds is least. The National Board of Health discovered that this was true of twenty-seven cities investigated by them in regard to the prevalence of cholera infantum, San Francisco being the only exception. An extremely varying velocity of wind in hot weather will increase diarrhoeal affections. In San Francisco the velocity is uniformly high, and the death-rate from infantile diarrhoeal diseases is but 5 in 10,000; in New Orleans the velocity is uniformly low, and the death-rate is but 7 in 10,000. But in Buffalo, Boston,

Brooklyn and Chicago the velocity of the wind is extremely variable, and we find a mortality from diarrhoeal affections amounting to 23, 24, 25 and 34 in 10,000 respectively.

The National Board of Health has reached the following conclusions regarding the relation of the velocity of the wind to diarrhoeal affections:

(1) That the greatest mortality from diarrhoeal diseases occurs in the month when the movement of the wind is least.

(2) The nearer the monthly movement of the wind approaches uniformity, the less the mortality from summer diarrhoea.

5. *Ozone*.—In Michigan the health authorities have studied the relation of atmospheric ozone to various diseases, and some very interesting phenomena have been observed, viz.: that maximum of acute respiratory diseases occurs in months when there is the maximum of atmospheric ozone, and that the maximum of acute intestinal diseases occurs when there is least atmospheric ozone. It has been recently demonstrated that the amount of atmospheric ozone is an index of the purity of the air. It is abundant at sea and in the mountains; it is wanting in cities during hot months and wherever there is abundant decomposing matter. When we discover, therefore, that there is most diarrhoeal disease when there is least atmospheric ozone, the real meaning is that the air is most impure.

To sum up the relation of meteorological conditions to the prevalence of infantile diarrhoea we will state—

(1) That when there is more than the average of diarrhoeal diseases the average daily range of temperature, the average temperature and the absolute humidity of the atmosphere are *greater* than the average for the year, and vice versa.

(2) That when there is more than the average of diarrhoeal diseases, the relative humidity of the air, the rainfall, the average velocity of the wind, and the amount of ozone are less than the average for the year, and vice versa.

How does hot weather induce diarrhoea in children? The answer to this question hinges largely on the fact that the per-

spiratory functions of the infant are very defective or entirely wanting. Tardieu, Becher and Brown-Sequard have made experiments showing that the temperature of the adult body rises one degree for every twenty degrees sudden rise in the temperature of the surrounding atmosphere. In children the effect of atmospheric heat must be far greater. As perspiration is defective, nature attempts to maintain the normal heat by copious watery discharges from the bowels, a phenomenon attended by reduction of the temperature of the blood, and sometimes called sudoral diarrhœa. The digestive functions, moreover, are interfered with by the fever produced by heat, as it is a well-known fact that all fever patients are dyspeptic. But the principal action of the atmospheric heat is in the promotion of the decomposition of organic matter—filth—thus poisoning the air which the children are obliged to breathe.

(To be continued.)

INTUBATION OF THE LARYNX.*

By HENRY D. INGRAHAM, M. D.,

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The first intelligent attempt ever made to tube the larynx, was that of M. Bouchut, of Paris, in 1858. This gentleman appeared before the Academy of Medicine in that city, and advocated a method of intubation of the larynx in cases of laryngeal stenosis and dyspnœa, as a substitute for tracheotomy. He proposed the use of cylindrical tubes three-fourths of an inch to one inch long, and one-fourth of an inch or a little more in diameter, introduced on the point of a hollow sound and the tube allowed to rest on the vocal cords. A silk thread was attached to the tubes to facilitate their withdrawal when necessary. He recited seven cases—five of them had died, and two recovered after having tracheotomy performed. Notwithstanding the unfavorable result of his experience, Bouchut in commending tubage declaimed against tracheotomy, which aroused the antagonism and opposition of Trousseau, its strongest advocate, to such an extent that the new procedure failed, both in theory and practice, to commend itself to the profession.

*Read at the annual meeting of the Alumni Association, Medical Department, Niagara University, April, 1887.

Bouchut demonstrated but one fact, viz., that the larynx will tolerate a tube. A committee appointed by the Academy of Medicine to investigate the method reported that intubation of the larynx was impracticable.

It remained for Dr. Joseph O'Dwyer, of New York, to perfect a method of intubation, which is not only ingenious but practicable, and without doubt it has been the means of saving many lives.

Dr. O'Dwyer was ignorant of the experiments of Bouchut or the *dictum* of the Paris Academy, and he arrived at success after long, tedious and untiring efforts. He had perfected the instrument so completely, had tested the matter so thoroughly before bringing it to the notice of the profession, that there was but little opportunity left for improvement. Even after five years, experimenting on the cadaver and practice upon the living, and when he had accomplished so much he had not the assurance to justify himself in bringing his most wonderful discovery before the profession until he had given it farther trial, and doubtless would not have done so as soon as he did, had it not been for his friends.

All of you who have been in practice any length of time know too well the terrors of membranous or diphtheritic croup. You dread to be called to see a case, because the sufferings of the patient are fearful to behold, and the result is usually fatal. Sometimes little by little, but often quite rapidly, the laryngeal stenosis increases, and soon the patient begins to experience the want of air.

He throws his head back as far as possible in order to increase the capacity of the trachea, the chest is heaved violently at each effort to inspire, and the larynx is depressed forcibly towards the sternum, while the abdominal muscles co-operate energetically in expiration. The face is heavy and anxious, the eyes are dull, the lips livid, the skin dry, the extremities cold, or a clammy sweat breaks out upon the surface. The respiration is hurried, unequal and irregular, while the pulse is very frequent and feeble.

The child throws itself about and puts its hands to its throat

as though to tear away some obstacle to the admission of air, while helpless, hopeless agony is depicted on its countenance.

You know that the false membrane is occluding the larynx. You also know that relief is only possible by the removal of the obstruction to the passage of air. The mother appeals to you to save her child, or, if that cannot be done, to at least do something to relieve its suffering. Perhaps tracheotomy has been proposed, but the friends object. They may say as I once heard a German upon whose child it was proposed to operate, that it might do for dogs, but he was not going to have his child's throat cut; if he must die, he was not going to have him tortured.

With the great objections there is against tracheotomy, and the poor results obtained, no one feels like urging the operation very strongly.

Doubtless you are all familiar with the instruments of Dr. O'Dwyer and the mode of using them at least in theory, if not in practice.

I will not occupy your time with a detailed description of the operation, but will call your attention to some particular points. It is necessary to have the child's arms secured, and the best way is to fold a sheet lengthwise about a foot wide and wrap it around the body, binding the arms securely to its side. Some one holds the child, and another assistant holds the child's head in the natural position, not thrown back. The mouth-gag is now introduced between the teeth, and it may be necessary to have this held, as some children throw it out even when carefully placed. You then pass the index finger of the left hand over the tongue, hook up the epiglottis, and feel the opening of the larynx. The handle of the applicator should be held near the child's sternum until the tube has reached the pharyngeal wall, when the handle is rapidly elevated and the tube directed downward and forward along the finger into the larynx. I believe it is better to pass the tube by the side of the finger instead of in front of it, as I formerly did, because in young children the epiglottis is flaccid, and the end of the tube may push it down

and prevent the introduction of the tube. I think this has happened to me. But when you reach the end of the finger, you pass the tube directly *under* it, not over nor by the end of it. This is an important point.

When the tube is removed, the extractor is introduced under the finger in exactly the same manner. If the tube has been inserted into the larynx, respiration becomes easier. It is well to wait a minute or two before cutting the thread and withdrawing it, simply to be sure that the tube is in proper position.

There are several modifications of the O'Dwyer tubes, but I have no personal knowledge of any of them.

The relative value of tracheotomy and intubation as a means of saving life is shown by the following statistics:

Dr. A. Jacobi, of New York, who probably has had a larger experience than any other physician or surgeon in this country, reports that in over 400 tracheotomies that he has performed, only about a total of 12 per cent. have recovered.

Prof. Jacobi's statistics are more favorable than the average result, although I am aware that Drs. J. H. Ripley and Fred. Lange, of New York, report in 66 cases $33\frac{1}{3}$ per cent. of recoveries.

Dr. Brush, the gentleman who first brought before the profession Dr. O'Dwyer's method, told me last February that he had intubated in eight cases, and all terminated fatally.

In a letter received from Dr. O'Dwyer, written April 8th, he says: "I have practiced intubation of the larynx since the beginning of my experiments in 1880, in 134 cases of croup, membranous or diphtheritic, with 26 recoveries. During the first three years of this time, or while using very imperfect forms of tubes, I had no recovery. I have operated in private practice now 69 times, with 17 recoveries." Thus it appears that Dr. O'Dwyer has had 19.4 per cent. of recoveries, including all of his cases, while in private practice, and since the use of his more perfect tubes, the recoveries have been 24.6 per cent. He also writes me that he has been called to operate upon five other cases of diphtheritic croup where he did not

think it necessary, and the patients recovered without any operation.

Dr. Waxham reports (*Chicago Medical Journal and Examiner*, August, 1886,) that the record of recoveries in Chicago after tracheotomy has been 18.95 per cent., while that of intubation has been 27.71 per cent.

I have had four cases of intubation of the larynx, and although they all terminated fatally, there is no doubt in my mind but that one of them would have recovered had the child's mother obeyed the instructions given her, although the condition of the patient at the time of the introduction of the tube was very critical, and it was not expected that she could last long unless relief was afforded her. Upon the introduction of the tube, relief was almost immediate, and the child continued to improve for three days, when she was suddenly seized with a severe paroxysm of coughing and strangling, caused, as I believe, by drinking a glass of water, and suddenly expired.

In the other cases it was not expected when the tubes were introduced that recovery was possible, but in two of these cases the relief from the distressing dyspnoea was more than sufficient to justify the operation, and the parents of the children so expressed themselves.

In one case I was obliged to use too small a tube, the proper size being in the throat of another child at the time. The tube was coughed up and re-inserted three times without any apparent injury to the child.

It being true that the percentage of recoveries is greater from intubation than tracheotomy, and certainly there can be no doubt upon this point, it is much the preferable operation of the two. Anything which saves the life of the patient, or any procedure which saves more lives than another, is the proper one to adopt.

But besides the more favorable results, there are many other reasons which recommend intubation over tracheotomy.

Chief among these are that there is no objection upon the part of the parents, or, at least, but little; and after it has been

proposed and explained, the parents themselves usually ask for the introduction of the tube, if for any reason it be delayed.

In most cases, after the operation the relief is marvelous. Physicians of many years' experience say that they have never seen anything like it. The child usually expresses himself as greatly relieved, and in one case which I had, the patient said, soon after the introduction of the tube, "You are good doctors, to make me feel so much better."

If the child dies, there is no regret upon the part of the physician or friends that the operation was performed, usually only feelings of gratitude that the sufferings of the little patient have been so greatly relieved, even if his life has not been saved. Certainly, if the operation did no more than to relieve the terrible sufferings of the patient, it would, in my mind, be sufficient to fully commend it.

The tube is worn without much irritation, and expectoration occurs more readily than through the tube used in tracheotomy. The air that enters the lungs through the tube is warm and moist from its course through the upper air passages, and bronchitis or pneumonia is not as likely to occur as it is after tracheotomy.

In intubation, the operation is bloodless, and there is no open wound, which in itself may be a source of danger. It is more quickly performed, and with less danger than tracheotomy. If the patient recovers, convalescence is more rapid, the patient usually regaining the use of his voice in seven to ten days after the removal of the tube. Still another advantage is that the patient does not need the constant care of the surgeon or some skilled person, as in tracheotomy.

Although there are many reasons to recommend intubation, there are, as with everything else, several objections to it. One of these is the difficulty of introducing the tube, which in some cases, it must be confessed, is great; yet, a sufficient amount of practice upon the cadaver, and a reasonable amount of dexterity, combined with coolness, there is usually no serious difficulty in the operation. If it is difficult, it is not a sufficient reason to

prevent all being done to relieve the patient that is possible. Another objection is the inability of some patients to swallow liquids; all can swallow solids and semi-solids without difficulty, and most patients can swallow liquids after a little practice without much trouble, if the nurse is careful to give it to them, at first, while lying on the side. In some cases the epiglottis does not seem to close over the tube, and then the child is unable to swallow liquids without coughing, indicating that some of the liquid has passed through the tube, and hence the dangers of lung complications are increased. Dr. O'Dwyer told me, if I understood him correctly, that he did not think there was much, if any, danger of any fluid passing through the tube in any case; that he considers it safe to let a child drink a reasonable quantity of liquid if he wishes it. His experience is vastly greater than mine, yet I cannot but believe that the first case I had would have recovered if she had not been allowed to drink all she wished. This patient was doing very well, had greatly improved, and presented every indication of recovery. She could not, however, swallow liquids without coughing, unless she lay on her side, and took only a teaspoonful at a time.

Contrary to strict orders, the mother gave the patient a tumblerful of water, which she drank. She immediately had a violent fit of coughing and strangling, and in less than thirty minutes was dead.

Unfortunately, croup appears to occur more frequently in families where the parents are not remarkable for intelligence, or particular to follow closely the advice of the physician, and the care and attention which the patients receive is usually none of the best. After intubation the relief is usually so great that it is often very difficult to convince the friends that the child is still very ill; that you have only given it one more opportunity to get well—that it is yet suffering from a very grave disease, with the chances of recovery much against it. They are so pleased with the changed condition of the sufferer, who a few moments ago was on the verge of suffocation, that they cannot

believe what you tell them, hence the patient does not receive the care and attention which he should. When we can have an intelligent nurse—one who will carefully attend to the administration or non-administration of food and drinks, and conscientiously carry out our instructions—and when the operation can be performed dexterously by the physician, I believe the recoveries from intubation will be much greater than at present reported, and the operation come into more frequent use.

Miscellany.

EL KELLAH.—Two Egyptian physicians connected with the University of Cairo, Hassan-Pacha Mahmoud and Ibrahim Moustapha, have been investigating the therapeutic and physiological properties of a plant, *el kella*, the alkaloid of which they have denominated *kelline*. In its action it resembles the narcotic poisons, causing vomiting, paralysis of the extremities, slowing of the respiration and irregularity of the pulse. It has been successfully employed as a gargle in sore throat and diseases of the buccal mucosa. Internally it has been used in the treatment of acute rheumatism, lithiasis and cystitis. Kella is also said to be a tonic. It is generally given in the form of a syrup or decoction.

“Is the Cholera Coming?” is the title of a paper published by Dr. J. B. Lindsley in the *Southern Practitioner*. Reasoning from the histories of previous epidemics he believes that the disease will within a few years make its appearance in North America. Cholera has heretofore never visited Europe without crossing the ocean to make this country the field of its ravages, as the epidemics of 1833, 1849, 1854, 1866 and 1873 have demonstrated. When the cholera broke out in France in 1884, startling bulletins were published daily in this country, but we are now according to the writer in much more danger than we were at that date.

GASEOUS injections in the treatment of phthisis are new, and yet disadvantages have already been discovered. Dr. Calmon, in a

resumé of the subject published in *L'Abcille Medical*, concludes that the formation of tubercle is not arrested, the night sweats are not relieved, and there is no reduction of temperature. Intestinal disturbances are sometimes produced, and digestion often disturbed. He admits that calm sleep sometimes follows the use of the injection, but he attributes this to the action of the carbonic acid gas. He believes that this treatment may be advantageously used in certain cases as a palliative, but not as a cure.

A DEATH CERTIFICATE.—All applications for free burial in this city must be accompanied by a death certificate, written and signed by the attending physician and indorsed by the City Physician having charge of the ward in which the deceased lived. The following is a copy of a certificate which was presented the other day to the physician of the Second Ward for his indorsement:

“I certify that Alice Pain’s two twins is ded they was stillbornd.”

The indorsement reads as follows: “Correct, except orthography and grammar.

E. v. G., Phys. 2d Ward.”

—*Southern Practitioner*.

THE cholera epidemic is about ended in Argentine Republic, but cases have appeared in Bolivia and Ecuador. It seems to be traveling slowly northward on the Pacific Coast. The following are the statistics of mortality in Buenos Ayres from November, 1886, to March, 1887: November, 31; December, 487; January, 355; February, 221. Total deaths, 1094. In Parana there were 990 cases and 250 deaths; in Rosario there were 154 deaths.

A FRENCH physician, Duchausen, sends a communication to the *Societe Med. Pratique* describing some of the effects upon health produced by the recent earthquake in the Riviera. Among others, three cases of metrorrhagia were produced; in one case the woman had not menstruated for four years. Earthquakes may be considered the latest and most powerful emmenagogue.

DR. HENRY WILE, Professor of Dermatology in the Atlanta Medical College and author of some of the articles in Wood’s Hand-book of

the Medical Sciences, died on the train between Chicago and Rochester, in April. Dr. Wile, though a young man, had attained a high rank in his profession. The cause of his death was phthisis.

BECHTEREW has made numerous experiments on birds, rats, dogs, etc., to determine the functions of the optic thalami, and concludes that these organs preside over the muscles in the eye which express the passions and feelings. Observations on patients with disease of the optic thalami corroborates these views.

GRAWITZ, Virchow's assistant, states that one-third of the cases of so-called muscular rheumatism which have been examined *post mortem* reveal the presence of *trichinae spirales* in the muscles. In many cases the parasites have been present in the muscles for years.

IN ancient times there were no Jewish physicians. Medical science was in the hands of foreigners in Jerusalem, and it was considered sacrilegious for an Israelite to employ them. Now it is reported that there are 900 Hebrew doctors in New York City.

Two physicians of St. Louis entertained their *confreres* at a meeting of the City Medical Society with a combat a la Sullivan. They were separated at the end of the first round. The difficulty arose from professional misunderstandings.

IN Russia there are annually 30 suicides per million inhabitants. In London there were 87 per million, in Berlin 170 per million, while Paris leads the world in this respect with 206 suicides per million.

REBUTEL has found that sulphurate of atropine is an almost certain cure for sea sickness. The method of administration is to give two or three hundredths of a grain subcutaneously every eight hours.

THE Russian Government has recently prohibited the importation of patent medicines. A list comprising some eight hundred of these articles has been published.

DR. J. S. JEWELL, the eminent neurologist of Chicago, is dead.

THE furniture, etc., of the Homœopathic Mutual Life Insurance Company has been attached by the sheriff.

THE Buffalo Medical and Surgical Association has taken new quarters in the Buffalo Library building.

THE United States Government has appropriated \$10,000 for the use of the Ninth International Medical Congress.

IT is more necessary for the doctor to have a carriage than to cure his patient.—*Balzac*.

Selections.

PYO-SALPINX IN ITS RELATION TO PUERPERAL FEVER.

The following report, taken from the transactions of the Philadelphia Obstetrical Society, is full of interest, because it shows a possible etiological factor in the causation of puerperal fever heretofore taken into consideration too infrequently. Because of its exceeding great practical interest, we give the synopsis in full.

Dr. J. M. Baldy presented this specimen, not simply because it was one of pyo-salpinx, but because of its extremely important relation to the puerperal state, and, as far as he is aware, because it is the first of its kind ever operated upon, and life saved when the patient was dying from so-called puerperal fever.

The patient, Mamie P., 23 years of age, was delivered of a male child after a tedious but normal labor some four years ago. She was at that time confined to her bed for eight weeks with "an inflammation in her stomach." She, however, made a good recovery, and has not suffered with pain or ache in her abdomen since. On February 3, 1887, he was called to attend her in her second labor. Although he went with the messenger, he found labor over; a dead child, together with the placenta and all the membranes intact, lay between her thighs. Her uncovered arms, chest and legs were exposed in a room without a fire. No examination was made, but she was put between warm, dry bed clothes as quickly as possible. On the second or third day she had a chill with a quick rise of pulse

and temperature, a tympanitic and tender abdomen. These symptoms abated somewhat, and he lost sight of her several weeks. On the third of March, one month after her confinement, he was again summoned to her, and found that she had been suffering ever since he had seen her. She had become so emaciated that he hardly recognized her. Her temperature was 102° , and pulse 130. She had continued chills and creeps, hectic, night-sweats and sleepless nights; her abdomen was swollen and tympanitic, and intensely painful, her bowels loose and fetid; micturition and defecation were both painful. She was evidently fast approaching death. An examination of the soft parts showed no sign of a recent tear. The uterus was sub-involuted, and on the left side there was a large boggy mass firmly adherent, tortuous, and extremely tender. The right side was tender, but no mass could be detected. Abdominal section was advised as the only hope of saving her life, and the proposition was eagerly accepted by the patient and her friends. Dr. J. Price saw the patient, and confirmed this opinion of immediate operation. He operated on March 5th, the delay being necessary in order to allow the surroundings being cleansed. Drs. J. Price, McMurtrie, of Danville, Ky., and Mr. Eckman, of Scranton, Pa., were assisting. The right tube and ovary were healthy, and were not removed; left tube was almost as large as the uterus, and firmly adherent in all directions, especially to the bowels, from which it was separated with great difficulty. An abscess of the cellular tissue was ruptured while breaking up the adhesion, and pus welled up through the abdominal incision. Both tube and ovary were removed. A large cheesy mass on the bowel at the point of adhesion was trimmed down with scissors, and Monsel's solution applied to the bleeding points. After a free irrigation, a drainage tube was put in, and the incision, which was only one and a-half inches in length, was closed. The tube was found to be distended with pus, the ovary was disintegrated, and contained pus. The patient rallied quickly and had no shock, her pulse fell 80, and her temperature to normal within twelve hours, and remained so. The tube was removed on the seventh day. There had been little or no pain: no catheter, no laxative or drug of any kind had been employed. The day after the removal of the tube her pulse began to rise, as also did her temperature. Pain developed in the left ovarian region, and she began to have hectic and creeps. About

the eleventh day there was a free gush of pus from the tube tract, and she began to improve again from that moment. A rubber tube was inserted and passed deep into the pelvis, and the abscess was washed out twice daily. The discharge gradually diminished, and the tube was again removed. The wound is now completely healed, and the patient is a well woman.

The belief that a certain proportion of our puerperal fever cases are simply cases of salpingitis septicus is by no means a new one, and is probably held by most of the great operators in the world. Dr. M. Sanger says that "salpingitis septicus co-existing with severe puerperal septicæmia has never as yet given the surgeon an opportunity to remove the principal focus of disease by the extirpation of the tubes. It is possible, however, that under certain circumstances such a procedure might be indicated." Dr. Carl Schroeder holds that "septic endometritis does not extend to the tubes as a rule; occasionally, however, it does go on to a purulent salpingitis." That these cases do exist much more frequently than we have had any idea of is certain, and that oftentimes a life, otherwise doomed, can be saved by operative interference is proved by the case presented to-night. Mr. Tait mentions four deaths from this cause in Queen Charlotte Hospital alone, and says "that these cases were, during life, all regarded as puerperal fever." Dr. A. Martin, out of a total of two hundred and eighty-seven cases, found that seventy resulted from the puerperal state. Dr. Sanger mentions two cases which have come to knowledge in which the over-distended tubes burst and discharged pus into the abdominal cavity with death on the fourth day after confinement in one case, and on the twenty-first day in the second case. He thinks that in both these cases the salpingitis existed before delivery, and mentions a case in his own practice in which this certainly was the condition. Hecker, as early as 1878, mentions two cases in which the pyo-salpinx was old and was only lit up by the puerperal state. Whether the disease arises *de novo*, or having already existed from other causes is simply lit up by the puerperal state, must be determined in each individual case. Hecker's and Sanger's cases as mentioned had a pre-existing salpingitis, but in the seventy cases reported by Martin, the micro organisms of puerperal septicæmia were found in the contents of the tubes, and no mention is made of any other micro-organism; so it is fair to presume that these cases

arose from the puerperal state pure and simple. Of course, the possible contagion of gonorrhœa can never be eliminated except by a microscopic examination. In his case, although the trouble seemed very clearly to have arisen at the second time of labor, possibly with her first labor also, yet the chance of gonorrhœal infection, both before and after her first pregnancy, are so great that he cannot pretend to say it was not present. The operation has up to this time been done at least four times in Philadelphia; one case was operated on just two weeks previous to mine by Dr. Longaker, in which a pyo-salpinx was found and removed, the patient dying on the second day. Dr. J. Price has since operated twice, and in one found more than a quart of pus in the abdominal cavity. The case, unfortunately, fell into his hands too late, and the patient only survived two days. These cases, though few in number, certainly teach us that the work done in this direction is encouraging, and although a large percentage have died, it only warns us of the extreme importance of an early diagnosis and prompt surgical interference. It becomes our imperative duty in every case of post puerperal trouble to make a thorough investigation of the appearance of the first symptoms, and should a fullness be found on either or both sides of the uterus, accompanied by pain on touch, and with constitutional symptoms of gravity, there should be no hesitation as to the course to pursue. This being secured, our present high mortality of one woman out of every hundred deliveries in large cities, as recently stated in a statistical paper on lying-in charities in the United States, must be largely diminished, and the fatal influences now surrounding our purulent women must become infinitely less.

In the discussion which followed, Dr. Tait read the following letter from Mr. Lawson Tait:

“There can be no doubt as to the frequency of the occurrence of puerperal pyo-salpinx; and what we want to do is to hammer at people until we get them to open the abdomen in primary puerperal peritonitis.”

UTILITY OF CARRICK'S SOLUBLE FOOD.

DR. MALACRIDA, in *Gazette Degli Ospitali*, Milan, 1886.—In July last there came under my care a lady suffering from parenchymatous rheumatic nephritis. The attack was so acute as to lead to the sus-

picion of Variola, shivering frequent and terrible lumbar pains, vomiting, but on the third day occurred an œdema, which became general, the urine being examined, removed every doubt as to the diagnosis. In quantity half a litre in twenty-four hours; re-action acid; specific gravity 1035; reddish brown color on account of the presence of blood. Tested for albumen it became a solid brown mass, almost black. The microscope revealed a great quantity of renal epithelium, numerous blood corpuscles, both red and white, etc. The patient was threatened with pulmonary œdema, an obstinate vomiting of mucous and acid rendered impossible the administration of any remedy to overcome the constipation afflicting the patient from the first, and which prevented any possibility, by the intestinal tract, of compensating for the insufficiency of alimentation. Perspiration was induced, cups were applied to the lumbar region, attempts were made to administer milk; first pure, then deprived of butter by beating, and seasoned with salt or with Carlsbad water, but all were abandoned on account of distressing gastric symptoms being aggravated in the most extraordinary manner. Not knowing where to turn for a dietetic and curative method, it occurred to me that when sick infants were afflicted with gastro-enteritis of the gravest nature, I had always used the Carnrick Soluble Food with the greatest success. I therefore resolved to try it in this instance. I had a teaspoonful boiled a few moments in a glass of water and gave it hot to my patient, who supported it exceedingly well. I repeated the portion after a few hours. In short, nourished with this food alone and treated with a few subcutaneous injections of hydrochlorate of pilo-carpine, the gastric intolerance diminished, the tongue became clean, the breath less offensive, the quantity of albumen contained in the urine being less, mophologic elements disappeared, phosphites and chlorides re-appeared, and the patient made good recovery, not abandoning, however, for two weeks more, Soluble Food (*la sua farina alimentare*).

The same tolerance for this nutriment was afterwards noted in two other cases of nephritis when milk could not be retained. I also attempted the administration of this food in two cases of ulcer of the stomach, but with less happy results, though the tolerance was better than for milk, especially with the addition of a strong infusion of coca or a few centigrammes of hydrochlorate of cocaine.

Another female patient afflicted with carcinoma of the pylorus, and

for whom the question of alimentation was a most serious one, as she tolerated neither milk nor broth, nor extract of meat, nor peptones, supported very well the Soluble Food cooked in water, to which was added a little diluted spirit of cider.

In conclusion, I believe that of all the special foods which are more or less highly praised and introduced to our notice, this Carnrick Food merits the preference.

TRANSPLANTATION OF TENDON FROM ANIMAL TO MAN.

The Paris correspondent of the *British Medical Journal*, February 12, 1887, refers to a note by M. Peyrot on the transplantation of tendon from an animal to man. The patient, a boy, aged 14, entered the Hôtel Dieu in October, 1885. Six months previous to that date, he had received a wound on the palmar aspect of the first phalanx of the left middle finger, near the groove between the first and second phalanx. The flexor tendons were completely divided, and the finger was forcibly drawn back by the extensors. Simple suture of the two ends was out of the question, on account of the great length of time that had elapsed since the infliction of the injury. On October 30th an incision was made over the first phalanx in its palmar aspect, extending into the palm of the hand for a distance of about four centimetres. The ends of the tendon having been found with some difficulty, a piece of flexor-tendon, thirty-three millimetres in length, was taken from the hind paw of a young dog, and united to the vitalized ends of the divided tendon by three stitches of catgut. The incision itself was brought together by two rows of stitches; a deep one, near the transplanted tendon, in order to form a sheath, and a superficial one, in the skin. The operation was done with the most minute antiseptic precautions. When the first dressing was removed, ten days after the operation, it was found that there had been no suppuration; but, unfortunately, union had not taken place. There was, however, no sloughing, and the wound healed well. When the patient left the hospital on January 4, 1886, he had regained the use of all the fingers of the injured hand, though the movements were still feeble. In a similar case in a child aged two and a half years, the transplanted tendon (the tendo Achillis of a cat) was completely eliminated three

weeks after the operation. M. Peyrot considers that, as a general rule, transplantation should be had recourse to only in cases of real loss of substance, or when the length of time which has elapsed since the injury has produced a definitive separation of the two ends of the tendon.—*Therapeutic Gazette.*

FACIAL NEURALGIA—ITS OPERATIVE TREATMENT.

Dr. George R. Fowler (*Annals of Surgery*) sums up the experience of surgeons on the operative treatment of facial neuralgia thus:

1. Neuralgias of the fifth cranial nerve, of peripheral origin, which have resisted methods of treatment other than operative, may be expected to yield to the operation of neurectomy of the trunk or trunks whose branches are distributed by the painful area. In this class of cases, the neurectomy should be carried, if possible, to the point at which the nerve makes its exit from the cranium.

2. Cases of central origin should be first submitted to a limited neurectomy, conjoined with nerve-stretching, in the hope that the process of degeneration thus set up, together with the rest gained by interrupting the centripetally-conducted stimuli, may favorably influence the diseased central organ. In case of relapse, this may be repeated, provided the period of rest thereby gained corresponds to the length of time which Waller's investigations show to be usually occupied by the process of degeneration and regeneration. If no relief is gained, a similar operation should be performed upon all of the divisions of the fifth nerve. This failing, a complete neurectomy of each division accessible should be done; and, finally, ligature of the common carotid may be tried as a last resort.

3. In case of doubtful origin, a complete neurectomy followed, in cases which relapse, by ligature of the external and common carotid, in turn, hold out the best prospect of cure.

4. A complete neurectomy of the second division of the fifth necessarily involves the extirpation or destruction of the sphenopalatine ganglion; and to this fact, rather than to any intrinsic tendency of the ganglion itself to keep up the irritation causing the neuralgia, is to be attributed, in all probability, any increasing immunity from relapse claimed to have been obtained in those cases in which Carnochan's operation has been performed.

No patient should be denied, other things being equal, the chance

which any one or all these operations in turn may give him of escaping, even for a short time, the intolerable suffering incident to an intractable or otherwise irremediable facial neuralgia.

VIRULENT PURULENT SEPSIS.

At a late meeting of the Philadelphia Obstetric Society, Dr. Hirst presented specimens by permission of Prof. Parvin, from whose patient they were taken: "The specimens are interesting, not merely because they come from a case of puerperal fever, which unfortunately is not a rare disease, but from the rapidity with which the disease terminated fatally, and from the possible point of entrance of the septicæmic poison. The history of the case before delivery presents nothing worthy of note. Immediately after delivery the temperature was 99.5° , and in spite of the most energetic antiseptic treatment of the vagina and uterine cavity the temperature rose to 102° , but dropped again to 99.5° , only to rise again to 102° , where it remained until the woman's death about seventy two hours after the birth. The post-mortem examination showed diphtheritic patches in the vagina, extending into the cervical canal. The uterine cavity and walls were normal; the peritoneum tubes and ovaries healthy; the kidneys were the seat of numerous metastatic abscesses and there were several infarcts in the liver. The lungs were healthy. The rectum was covered with extensive patches of diphtheritic membrane; a very interesting condition, for it indicates the possibility at least that here was the point of infection, and if this is the case, this specimen at once assumes considerable importance, for he knows only three such cases in medical literature, one by Winckel, the others by Koster and v. Recklinghausen. These specimens may well serve to call attention to the possibility of infection by the administration of enemata and to the importance of observing the most minute precautions as to the chemical cleanliness of every instrument that may come in contact with the parturient or puerperal woman."

NOTES RESPECTING SPECIAL CATHARTICS.

Dr. Henry M. Field (*Journal of the American Medical Association*) calls attention to the following points respecting a few cathartics:

1. The salines do not agree with the aged—they find them too

chilling; and a dose of epsom salts, which may operate very kindly upon the young and middle-aged and vigorous, may bring a serious disaster to the old man or woman. A sudden depression of vital energy and the function of calorification thus procured, together with other favoring circumstances, have more than once precipitated the subject into fatal pneumonia.

2. All cathartics are apt to be attended with colicky complications when given to a woman at the epoch of menopause; and especial combination at such time, as with carminatives, should be directed against this painful action.

3. The common domestic cathartic, senna, should never be prescribed to the subject of cumulative constipation or of impacted feces; if there be anything answerable to a fæcal plug formed in the course of the small intestine or near the valve, on either side, such a peristaltic cathartic as senna will infallibly occasion serious, and even alarming, colic before evacuation can be accomplished; and the same restriction applies to a similar use of an integral dose of calomel.

4. In a case of impacted constipation, in which it is presumed that the bowels are more or less distended with hard, dry, knotty, scybalous masses, nothing works so well as epsom salts, combined, perhaps, with small doses of tartar emetic.

5. In cases of uterine hæmorrhage, habitual constipation can best be treated by cream of tartar. This does not induce muscular contraction of either the intestines or uterus, while it reduces temperature and lowers blood pressure.

COCAINE.—Dr. Bignon, of Lima, (*American Practitioner and News*,) from a series of experiments on the dog and man, has noted the following results:

1. That cocaine produces only temporary physiological effects in doses from 20 to 50 centigrams when administered by the stomach, on condition of its being absorbed in small divided doses (of five centigrams each hour).

2. It acts principally on the renal secretion in slackening that function, interfering with the elimination of the products of oxidation and thus producing the first symptoms of slight uræmia.

3. In large doses, given at once, it produces anuria, which is followed by grave uræmic accidents, nervous attacks, convulsions, etc.

4. The paralyzed kidney generally regains its function two or three hours after the absorption of the alkaloid; then follows considerable diuresis, which is the more active the longer the duration of the anuria, and relief to the organism.

5. Cocaine is only indirectly toxic when the dose is sufficiently high to prolong the anuria to the point of uræmic poisoning.

6. If the diuresis should quickly remove the toxic phenomena, the general stimulating action continues none the less for a long time afterwards; it lasts about twenty-four hours (in a dose of fifty centigrams to be given in the course of the day). During this time, the phenomena of oxidation continue to go beyond the normal average. In a word, denutrition continues.

LATE PUERPERAL INFECTION.—As illustrative of the benefits of intra uterine irrigation and curetting for fever occurring late in the puerperal period, Dr. B. C. Hirst recently reported three cases to the Philadelphia Obstetrical Society. In these cases fever began on the fourteenth, eleventh and twelfth days, respectively, associated with fetid, muco-purulent discharges, patulous os, uterus large, pain and tenderness. Here the results of treatment justified the diagnosis that the source of infection was intra-uterine, as most cases of late infection are apt to be; also that some times the antiseptic intra-uterine irrigation is not sufficient to dislodge the offending cause, but that the blunt curette should be used, followed by irrigation.

BOVINE TUBERCULOSIS: ITS COMMUNICABILITY.—Dr. M. D. Blaine, (*Medical Record*, January 15, 1887,) from a study of tuberculosis in the bovine species, concludes:

1. In the bovine species, the disease is inherited either from male or female.

2. Tuberculosis is acquired by the inhalation of tuberculous substances.

3. Tuberculosis is acquired by the injection of milk of tuberculous cows, when the disease has reached the stage of suppuration, or when there is a tuberculous affection of the milk-bag.

4. The disease may also be acquired by the injection of the flesh of tuberculous animals.

Editorial.

LAW DEPARTMENT OF NIAGARA UNIVERSITY.

As announced some time since, Niagara University has added another department, that of law, to three already existing. The corps of professors, now complete, is as follows:

FACULTY.

- Hon. Charles Daniels,
Dean and Professor of the Principles of Constitutional Law.
- Hon. Charles Beckwith,
Professor of the Law of Equity Jurisprudence.
- Hon. Albion W. Tourgee,
Professor of Legal Ethics.
- LeRoy Parker,
Professor of Municipal Law, Contracts and Remedies.
- Spencer Clinton,
Professor of the Law of Real and Personal Property.
- James Fraser Gluck,
Professor of the Law of Corporations.
- George Clinton,
Professor of Maritime Laws and Admiralty.
- John G. Milburn,
Professor of the Theory of Law Codes and Codification.
- Adelbert Moot,
Professor of the Law of Evidence.
- Tracy C. Becker,
Professor of Criminal Law and Procedure and Medical Jurisprudence.
- Charles P. Norton,
Registrar and Assistant to the Chair of Municipal Law, Contracts and Remedies.
- E. Corning Townsend,
Assistant Instructor, Secretary and Treasurer.

The Law Department of Niagara University is, like its sister Medical Department, located at Buffalo, N. Y. It has been organized during the past year, and includes in its faculty and instructors some of the most prominent and able jurists of New York State. While it is under the direct management and supervision of the law faculty, it has, besides, a strong corps of special lecturers. The major part of these professors, instructors and special lecturers are lawyers of large practice, and the method of their instruction is an exposition of legal principles made practical by their own experience. The student thus learns the law in much the same way that all lawyers learn it in their practice.

The object of the department of law is to teach the theory and practice of common law, and it aims to afford such a training in its principles as will enable the student to practice his profession anywhere where the system of the common law prevails. Its training and method of instruction embrace the study of leading cases, lectures, recitations, drill in Moot Courts and theses written by the students on legal subjects.

Its course covers a period of two full years, beginning with the first week in October and ending the middle of May; with a post graduate or optional course of one year, to be pursued by students who have graduated or by students in special courses.

The prospectus soon to be published by the law department will show more fully the field of instruction contemplated.

The situation of the College at Buffalo is a peculiarly fortunate one. During most of the college year four of the higher courts are sitting, in which the actual trial of important cases, often by distinguished counsel, is going on. During all of the college year special terms of the Supreme Court and the Superior Court of Buffalo are open, where judges sit daily to hear and determine questions touching almost every branch of the law. A term of the United States District Court is held in Buffalo in September of each year. The large and well-selected Bar Library will be free to students for consultation.

Places will be found for students in the offices of members of the Buffalo Bar, where it is expected they will spend their time when not actually engaged in attendance at the Law School. Students will thus be afforded an opportunity of seeing, and to some extent assisting in, the actual details of law practice.

The admission of applicants who are candidates for a degree is regulated as follows: All graduates of literary colleges are admitted without examination. Candidates must be at least eighteen years of age and have received a good academic education. They will be examined upon subjects prescribed by the faculty to be published in the announcement of the department. A certificate of the Board of Regents of New York State entitles a person to admission without examination. Applicants not candidates for a degree are also admitted without examination.

The degree conferred by the department on graduation is that of Bachelor of Laws. The degree conferred at the end of the post graduate course is that of Master of Laws.

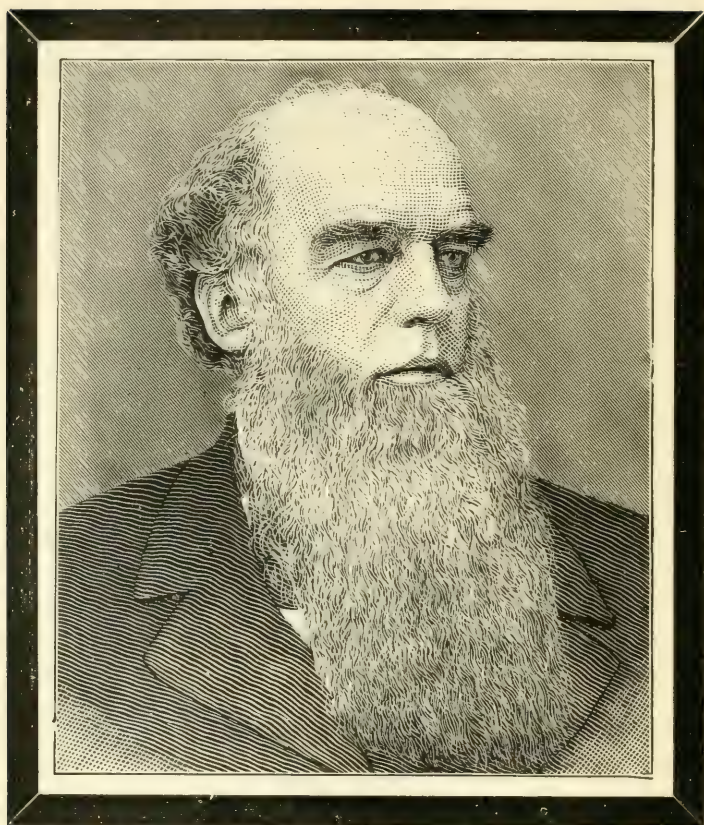
The tuition fee is one hundred dollars a year, payable one-half at the beginning and the other half at the middle of the year. The payment of the tuition fee shall be a pre-requisite to attendance. This fee admits the student to lectures and instruction in all the departments, and to the use of the law library and gymnasium.

Good board can be obtained in Buffalo at very reasonable prices.

For further inquiries, address the Secretary of the faculty,
E. C. TOWNSEND,

73 White Building, Buffalo, N. Y.

DR. EDWARD CLARK, who has for some months past been in New York with Dr. Kelsey studying diseases of the rectum, has returned to the city and will locate at 46 West Huron street, in the office formerly occupied by the late Dr. McNeil. Dr. Clark will devote his attention exclusively to the practice of rectal surgery, and as we are acquainted with his high professional attainments we feel assured that he will rapidly acquire a lucrative practice in the specialty he has chosen.



THOMAS F. ROCHESTER, M. D., LL.D.

Obituary.

THOMAS F. ROCHESTER, M. D., LL.D.

One year ago, after a partial recovery of Dr. Rochester from a long and painful illness, the JOURNAL paid a tribute to his worth and expressed the hope that the noble man and great physician would be spared to this community. But such was not to be, and great is the loss to the profession, to the public, and greater still to the college in which he was the main support. By his death the profession loses a man whose place can scarcely be filled. The public sustains a great loss, the college a loss which years alone and patient labor on the part of the whole faculty can repair. Dr. Rochester maintained his exalted position at the head of the profession, first, because his education was broad and far-reaching. His heart was in his work. He continued to be a thorough student and kept abreast with the best scientific work of his time. Thus he feared no rivals. The public estimation, as given in the following extracts from the press and the resolutions of various organizations, show an exalted opinion of the man, which is not greater than ours:

"After a protracted fight against all-conquering Death, he passed away May 24, 1887. Hundreds of friends will feel a sense of personal loss in the demise of this excellent man, who had won for himself a foremost place in the ranks of his profession, who had carved for himself a niche in the Temple of Fame. Not only in his profession was he known and honored, for his name had long been identified with the city's best interests. He was not unknown among the poor and deserving, for his acts of unostentatious charity were many and far-reaching. None knew him but to esteem him; his friendship was valued by all classes.

"The fatal illness may be traced back to an accident which occurred to Dr. Rochester on February 17, 1885, when he was thrown from his cutter while out making professional visits, and

seriously injured. The shock to his system caused him to be confined to his house several weeks. He was subsequently able to be about, but after a few weeks began to be troubled with fierce attacks of asthma, frequently repeated. In April, 1885, he went to Washington, Richmond, and Houghton Row, and came back somewhat relieved. But he was troubled with asthma more or less during the summer and fall, at the same time continuing his professional duties and taking his own remedies. He went to New York to attend a medical meeting on November 20, 1885, and while there suffered a severe attack of asthma, and came back home without completing the business for which he had gone. For four months he was confined to his home. He experienced attacks of asthma almost every day in spite of all efforts, and in December it was also found that he had water in his chest. For this he operated on December 16th, and was relieved of asthma, which continued to trouble him only when water accumulated, especially during the next three months. His health was improved in March, 1886, to such an extent that it was thought a Southern trip would benefit him. While away he submitted to an operation once to relieve him from water. He returned the latter part of May. He had slight accumulation two or three times shortly after this, but eventually was entirely relieved for about two months, and was considered well enough to resume his professional visits to a moderate extent, and commenced his lectures before the Buffalo Medical College. The summer and fall passed away nicely with him. As spring approached he began to feel the effects of his work and was tapped two or three times on account of accumulation of water. Finally in March last the accumulations and consequent tappings had grown much more frequent, and there was a noticeable decline in the patient's constitution, with growing weakness and loss of appetite. The last period of his confinement at home dates from April 12th. For two weeks he did not leave the house. Then he recovered a little and occasionally took a ride out. On the night of May 5th he went to the Buffalo Club. Returning home he fatigued himself greatly in a rapid walk to

avoid a storm which was coming on. The next Sunday morning, May 8th, he took a ride, at the close of which he was taken violently ill, with an attack of vomiting and symptoms of great prostration. There was no fever, but heavy perspiration, and that irregularity and rapidity of pulse that indicated a failing system. He rested badly that night, but was easier on Monday, and since then had improved only in the way of physical comfort, his pulse varying from 100 to 140.

“His sickness is supposed to have been a chronic inflammation of the kidneys, closely allied to rheumatic or gouty kidney

“Thomas Fortescue Rochester was descended from colonial English settlers of Virginia, eldest son of T. H. and P. E. Rochester, and grandson of Col. Nathaniel Rochester, Deputy Commissary-General in the Continental Army, and for whom the city of Rochester is named.

“In the earlier years of Dr. Rochester's practice in Buffalo he was in partnership with Dr. Austin Flint, Sr. Most of the older practitioners of Buffalo with whom Dr. Rochester was associated are dead. A few remain, an ornament to their profession and an honor to their city. It was a worthy place that Dr. Rochester soon took among such able men as Drs. James P. White, Barnes, Pratt, Charles Winne, Loomis, P. H. Strong, Samo, James and George Hadley, Sanford B. Hunt, Charles A. Lee, John C. Dalton, Sanford Eastman, William Ring, and others. Especially in the State Medical Society were Dr. Rochester's professional associations agreeable and eminent. Of Dr. Rochester's professional publications may be mentioned ‘The Winter Climate of Malaga,’ being observations made during personal residence; ‘History of the Medical Societies of Buffalo;’ ‘The Army Surgeon;’ ‘The Modern Hygea;’ ‘Medical Men and Medical Matters of 1776,’ and many monographs on various professional subjects.

“Some of the foregoing are of no little local interest. With No. 2 of the first volume of the *Buffalo Medical and Surgical Journal and Reporter*, September, 1861, Dr. Rochester began the publication of a series of articles on the ‘History of the

Origin and Transactions of the Medical Societies of Buffalo,' which was continued through three numbers. These papers are probably the best record of the early years of the society ever made. He brought the abstract of proceedings down to April, 1861, beginning with 'the earliest record of medical association for professional improvement and advancement,' which was entitled 'The Constitution and By-Laws of the Medical Society of the Village of Buffalo, adopted July 16, 1831.' The first officers of the association were: President, Dr. Cyrenius Chapin; Vice-President, Dr. Judah Bliss; Recording Secretary, Dr. Bryant Burwell; Corresponding Secretary, Dr. Josiah Trowbridge; Treasurer, Moses Bristol.

"For many years the *Buffalo Medical Journal* contained frequent contributions from Dr. Rochester. Notable among these were papers on cholera, in which are recorded many interesting facts relating to the epidemic of 1854, with observations on cases at Suspension Bridge, Niagara Falls and Buffalo.

"Dr. Rochester was identified with various public institutions. He was President of the Buffalo Fine Arts Academy, and a practical patron and promoter of art. He was also a life member of the Young Men's Association and a member of Trinity Episcopal Church.

"As an instructor he was direct in style, always clear and forcible, aiming to teach, to inculcate a truth, rather than to appear learned in the eyes of his hearers. As a speaker he had often been heard in public. His annual remarks to the graduating classes from the nurses' training school, in connection with the General Hospital, are well remembered as models of kindly, advisory address.

"Beside the widow he leaves six children to grieve at the loss of a kind father and a considerate friend—Mr. Nathaniel Rochester, cashier of the Third National Bank; Dr. Delancey Rochester, and Miss Elizabeth, Miss Margaret, and Miss Emily Rochester, and Mrs. Charles B. Wheeler."

Dr. DeLancey has been with him several years in business, has many of the qualities of his father, and will undoubtedly

succeed to his large practice. By natural attainments and by education, as well as by heredity, he is certainly deserving of it.

The Erie County Medical Society met to take action and express their great grief at his loss.

Dr. John D. Hill was chosen chairman and Dr. William H. Thornton secretary. It is to be noted that every member, without exception, who addressed the society upon their common loss, betrayed emotion in voice and manner. Said Dr. Hill :

“Gentlemen of the Erie County Medical Association: You are all aware of the sad event which has called us together. Death has again entered our ranks, and has taken from our galaxy a bright and shining light—may I not say the *savant* of our profession?

“It is fitting on such an occasion that we should meet to pay the tribute and respect due a member who has devoted the energies of a life in advancing the best interests not alone of his chosen avocation, but of the community in which he lived. No member of this society was better known or more highly esteemed than was Dr. Thomas F. Rochester. We do credit to ourselves by honoring his memory.”

Dr. Hill then named as a committee to prepare a suitable memorial: Drs. Charles Cary, John Cronyn and J. B. Andrews, who retired for that sad duty.

The committee offered the following memorial:

“After an illness patiently borne for nearly two years, an illness which was heroically but unsuccessfully combatted, Dr. Thomas F. Rochester has been removed from our centre by death. His professional achievements, his absolute integrity, his sound judgment, his profound erudition, his purity of character, and his widespread generosity have endeared him to us all, and raised him to the very summit of distinction in this community; his many virtues have been the means whereby he has attained his brilliant success, and have gained for him the almost unprecedented regard and love of his fellow men, while by the radiance of his character he has invited emulation.

“We recognize that by the death of Dr. Rochester the Erie County Medical Society, the profession, our charities, arts and sciences, have lost a friend and supporter who cannot be replaced; that this society particularly will mourn the loss of one of its oldest, most zealous and able members, whose high attainments have given prominence to this society in the State; that the profession loses an endeared friend from

whose source of ever-flowing knowledge we have long been accustomed to draw; our charities have lost a too liberal contributor and a wise adviser, and society an intellectual, courteous and respected member, whose example of cheerfulness and Christianity will outlive his generation.

“*Resolved*, That this memorial be entered upon our minutes, and that a copy be transmitted to his bereaved family, who are not alone in their mourning, but whose terrible grief is shared by this society.”

Dr. M. D. Mann, in moving the adoption of the resolution, said that a truly good man had gone; great in soul and mind, with no malice or uncharitableness in his heart; full of sympathy, broad in learning—a Christian in the fullest sense of the word.

Dr. W. W. Potter, in seconding the motion, said that not in this century would the society be called upon to mourn the loss of another so great a healer. He knew the deceased for a third of a century as teacher, friend, and neighbor, and in all of these relations he fulfilled the speaker's ideal. The resolution was then unanimously adopted.

Dr. George N. Burwell, who attended Dr. Rochester in his last illness, was unable from emotion to read the tribute he had prepared and the secretary read the following :

“I come to-night, my friends and brethren, to mourn with you the loss of our friend, associate, and exemplar, Dr. Rochester, as well as to add to your tribute of high and most merited praise, the humble assurance of my affection and admiration. During all of his professional life in Buffalo we have worked side by side; always, I am most happy to say, in good understanding, and, therefore, always in peace and the most perfect harmony. He was the younger of the two, and perhaps the more ambitious; certainly the better worker and the more of the man of affairs. So to a certain extent we have worked on different lines; but never, on any occasion, to cross purposes. His push and energy have always claimed, and have had, admiration; and his prosperity and great reputation and renown have been always to me, as a citizen of Buffalo, objects of honest pride. I, therefore, do most sincerely mourn his death as a public loss to the city; and to the gentlemen associated with him in many and various associations it must be almost a calamity.

To myself, let me say, it is an irreparable loss, for it takes from

me the one most dear to me, and alas! almost the last one of the associates of my early medical life. His place, his esteem and friendship, which I ever so highly valued, can never be made good to me, and I mourn him as one without hope."

For the beautiful portrait which we are able to present we are under obligations to the *Buffalo Morning Express*.

DEATH OF DR. WILLIAM RING.

"One of Buffalo's most highly-esteemed physicians, Dr. William Ring, died April 21st, after an illness of only two days. Always a man of robust physique, he had probably never suffered a day's illness, with the exception of an attack of cholera in 1849, contracted in his frequent exposures during the epidemic in that year. This attack, however, predisposed him to bilious affections, from which he had suffered more or less ever since. On Sunday last he was taken with a severe attack of bilious colic, which on Monday developed into peritonitis, and it was then seen by Dr. E. T. Dorland and Dr. Charles Ring, who attended him, that nothing could be done to save his life. Apparently he did not realize his serious condition, and until a few hours of his end thought he would recover and live to accomplish more good. His last hours were not painful, and he passed away in peace.

"Dr. William Ring was born in De Ruyter, Madison County, on November 17, 1824. His father was Elihu Ring, a farmer, and his early education was gained principally at the country schools. Coming to Buffalo about 1847 to study medicine, he graduated from the Buffalo Medical College, then in the old Postoffice Building, on July 17, 1847, his diploma being the first to be issued by the college; he soon afterwards began practice in Buffalo, and with unusual success, his natural talent for the profession soon making itself apparent, and his faithful labors and the success attending them gaining him many friends and the respect of his fellow-practitioners. His life ever since had been that of a hard-working, charitable dispenser of good, and from the first to the last was largely spent among the poor,

with whom his name became a familiar household word. His untiring work among this unremunerative class was never lessened during his lifetime. An intimate friend, in speaking on this subject last night, recalled a favorite expression of his—that he preferred to treat the poor, for God was their paymaster. Few men have stood higher in their profession and few have numbered as many firm friends among all classes of people. Since 1864 he had charge of the Providence Insane Asylum as medical superintendent; he was a member of the American Medical Association, the New York State Medical Association, the New York State Medical Society, president of the Erie County Medical Society, and of the Buffalo Medical and Surgical Association. About 1862 he was elected Supervisor for two terms; he was also physician at several public institutions at various periods of his life. No elective public positions were ever sought by him. He was particularly interested and unusually successful in the treatment of the insane, and possessed a peculiar faculty in dealing with them. ‘One must always treat an insane man honorably if he would succeed with him,’ was one of his well-remembered expressions.

“Dr. Ring leaves two children, Charles and William G., both physicians, the former employed at the Almshouse.

“The Erie County Medical Society met, and Dr. E. T. Dorand was chosen to preside. He paid a fitting tribute to the departed, and was followed by Drs. John Cronyn, F. W. Bartlett, F. S. Crego, Edward Storck, P. H. Strong, John Hauenstein, J. B. Samo, and M. Hartwig, who gave interesting reminiscences of the deceased, and spoke with feeling of the qualities that made him a most honored member of the profession and won him so many friends in this community, as few men can boast. Resolutions presented by a committee consisting of Drs. Cronyn, Strong and Samo, were adopted. The following members of the society acted as bearers at the funeral: Drs. P. H. Strong, Milan Baker, George N. Burwell, John Cronyn, J. B. Samo, William C. Phelps, Conrad Diehl, F. S. Crego, John Hauenstein and J. C. Greene.

"This tribute comes from the Sisters of Providence Asylum, to which Dr. Ring was a devoted physician for twenty-four years: 'His unbounded charity in various ways to the poor first drew the attention of the Sisters to him, and caused his appointment as the physician of the Providence Asylum when it was first opened. His fidelity and kindness in attending the place during almost a quarter of a century won for him the entire confidence of the Sisters and patients. As a physician he was very skillful and successful, and effected many cures. He was quiet, gentle and unassuming. He was ever prompt and willing to attend any call of distress, night or day. For his strict observance of the principles of honor, justice and veracity in all his dealings he was deservedly honored and revered. His many noble qualities endeared him so much to his numerous patients that his professional visits and cheerful words of admonition were a healing balm to many a suffering heart. The tears of those he served so well now follow him to the tomb as to the sacred resting-place of one who lived more to relieve his fellow men from affliction and to be acceptable to the Heavenly Physician than to gain wealth or glory here below. The highest honor and gratitude are due to Dr. Ring for his good works and eminent virtues.' "—*Buffalo Express*.

Reviews.

Public Health. The Lomb Prize Essays of the American Public Health Association. Second edition.

This book comprises four valuable papers which were presented at a late meeting of the association. The first is Prof. Victor C. Vaughan's admirable article, entitled "Healthy Homes and Food for the Working Classes." The second is "The Sanitary Conditions and Necessities of School Houses and School Life," by Dr. Lincoln. Dr. Sternberg treats of "The Disinfection and Individual Prophylaxis against Infectious Diseases." The last essay is by Dr. Ireland, on "Pre-

ventable Causes of Disease, Injury and Death in Manufactories and Workshops, &c." These essays are truly admirable. We wish they were in the hands of every doctor. In the introduction, it is stated that the association regrets its inability to furnish them free, but that the present book is published at cost. It can be had by addressing the secretary, Dr. J. A. Watson, Concord, N. H. Our readers can obtain them in pamphlet form at thirty cents; in book, cloth bound, for sixty-five cents; or more handsomely bound, at one dollar, including postage.

Maternity, Infancy and Childhood. Hygiene of Pregnancy, Nursing and Weaning of Infants; the Care of Children in Health and Disease. By John M. Keating, Lecturer on Diseases of Women and Children, Philadelphia Hospital. J. B. Lippincott & Co., Philadelphia. London, 10 Henrietta st., Covent Garden.

This is the second volume of the excellent series of "Practical Lessons in Nursing," now being issued by the Lippincotts at the low price of one dollar each. It is specially intended and adapted for the use of mothers and those intrusted with the bringing up of children, and it is a book which the practitioner can safely commend to his families. The chapters on infant feeding and the weaning of children can be read by most physicians with interest and profit.

A Manual of Weights and Measures. including Principles of Metrology, the Weights and Measures now in Use; Weight and Volume and their Reciprocal Relations, etc., with Rules and Tables. By Oscar Oldberg, Ph. D., Professor of Pharmacy, etc., Illinois College of Pharmacy. Second edition, revised. Chicago: Charles T. Johnson, 105 Madison st.

This is an improved edition of a valuable little work. Students of medicine, and especially pharmacists, should be thoroughly familiar with the various systems of weights and measures in use in all parts of the civilized world. This book is the most complete treatise on metrology to be had in convenient form, and we heartily recommend it.

Natural Law in the Business World. By HENRY WOOD. Boston: Lee & Shepard. New York: C. T. Dillingham. Price, 75 cts.

This book is well worth the reading. The light of natural law is applied to the live, social and economic topics which are now attracting so much attention. It aims to expose the abuses and evils which masquerade under the banner of Labor, and the bad results of class prejudice and antagonism. Labor combinations, and their effect on the laborer; socialistic tendencies; excess of economic and railroad legislation; the distribution of wealth; principles governing corporations and railroads, and also many other prominent issues, are fully and thoroughly examined, in their connection with unvarying natural laws and principles. It is shown clearly that the business world is permeated by natural law, and that success in any department can only be gained by conformity to it. The opposing combinations, unions, corners, unwarranted legislation, sentimental and socialistic ideas, and everything else of an artificial nature, are shown to be mischievous, destructive and on a false basis. Every one who has read Drummond's "Natural Law in the Spiritual World," and many more, will be interested in seeing a corresponding application of natural and fixed principles to the economic and business world in which we live.

Wear and Tear; or, Hints for the Overworked. By S. WEIR MITCHELL, M. D., LL.D., Harv., Member of the National Academy of Sciences, President of the College of Physicians of Philadelphia, etc. Fifth edition, thoroughly revised. Philadelphia. 1887.

This is an admirable work to put in the hands of the mentally overworked—and who of the many thousand of brain-workers is not? This little volume, now in its fifth edition, has done much to correct the evils of our American system of constant overwork. It aims to correct the abuses in methods of education; the errors in our dress and habits of living. So many hints are given in this little work that are very valuable, it is the duty of every physician to read it and place it in the hands of his patients. The present edition is superior in many respects to the former numbers.

A Clinical Manual of Diseases of the Ear. By LAURENCE TRUMBULL, M. D., Ph. G., Aural Surgeon to the Jefferson Medical College Hospital, late Honorary President of the Otological Subsection of the British Medical Association at Cork, and Author of a Work on Hygiene of the Ear; with a colored lithographic plate and numerous illustrations on wood. Second edition. Philadelphia: J. B. Lippincott Company. 1887. Price, \$3.00.

"The sale of as large an edition as seventeen hundred copies of the author's work shows the appreciation of the profession of its character and scope." This book, as its name implies, is more decidedly a clinical manual. The statements found in the work are based on facts obtained after careful research. Those who have attended Dr. Trumbull's clinical lectures at the Jefferson Medical College Hospital will certainly agree with the statement that the doctor is painstaking and careful in his methods of recording cases.

The various methods of treatment of the many ear diseases have been so accurately and fully described as to merit especial mention. An appendix with an elaborate description and numerous cuts of the methods of illuminating the ear, nose, throat, and eye, makes this valuable book doubly acceptable at this time. It is needless to state that it is a work which can be made of great service to the general practitioner.

Text Book on Surgery—General, Operative and Mechanical. By John A. Wyeth, M. D., Professor of Surgery in the New York Polyclinic, Surgeon to Mt. Sinai Hospital. New York: D. Appleton & Co. 1887.

A book without either preface or introduction, but every page of its 777 is worth reading. A surgeon who has in his library such works as Agnew's, Gross', Hamilton's, Ashurst's System, etc., may think that he needs no new one, but we venture the opinion that if he sees this work he will buy it. The first thing that will attract him is the elegant colored illustrations—the new cuts and the perfect press-work. Then the terseness and vigor of the style in which it is written will delight him, and a more complete examination will convince him that the book is so full of meat that he cannot do without it. It is, too, a book excellently well adapted to the use of the student.



VOL. XXVII.

JULY, 1887.

No. 12

Original Communications.

THE CAUSES AND PREVENTION OF INFANTILE DIARRHŒAL DISEASES.

By F. R. CAMPBELL, A. M., M. D.

Lecturer on Hygiene, Niagara University,

Sanitary Inspector of the Board of Health, Buffalo, N. Y.

(Concluded.)

IV. SANITARY CAUSES.

Summer diarrhœa is classified by sanitarians as a filth disease. It is common and fatal in cities, but rare in the rural districts. It is most prevalent in filthy localities, where the soil is contaminated and the sewerage and drainage are imperfect. In Buffalo it is most fatal in the thickly settled portion of the Fifth Ward, where there is a shallow clay soil poorly drained. There is least of this affection in the Ninth Ward, which has a sandy soil, well drained and occupied by a wealthier class of people. Many of the streets in the Fifth Ward occupied by Poles are without sewers, pavements, or public water, the houses are overcrowded, the occupants filthy; garbage collects in the yards and is often thrown into the street. Many of the families occupy but one or two rooms. Soiled diapers are dried by the fire where the family diet is prepared. The children are seldom

bathed, the adults never. When a child becomes ill a physician is seldom called until a death certificate is needed. It is not surprising then that the mortality from diarrhoeal affections in these localities is nearly 100 per cent. above the average for the entire city.

Just how filth produces diarrhoea is not well known, for the same factors seem to vary in their effects upon different individuals. When the explorers Stanley and Dr. Livingstone were traveling together in Africa it was observed that the fetid miasms from swamps and marshes would cause fever in Stanley and dysentery in Dr. Livingstone.

Many hypotheses have been offered to explain how the emanations from decomposing matter may cause diarrhoeal disease, but as yet nothing positive have been demonstrated. We will mention—

(1) *The Chemical Hypothesis*.—Dr. D. F. Lincoln maintains that the sulphuretted hydrogen which is always evolved during process of decomposition of filth is converted into sulphuric acid gas in the air, and unites with sodium and ammonia bases to form purgative salts, sulphates of soda and ammonia. The continued inhalation of these gases and salts, he claims, will produce diarrhoea. In many persons the inhalation of sulphuretted hydrogen will produce digestive disturbances, malaise and diarrhoea.

(2) *The Zymotic Hypothesis*.—While the gaseous constituents of foul air may have some influence in the production of diarrhoea, there are undoubtedly other substances of far greater importance. The greatest number of living germs is found in the air of filthy localities. The zymoses are supposed by the majority of pathologists to be living ferments. Burkart in 1873 investigated a form of diarrhoea which he denominated intestinal mycosis. This affection was supposed to be caused by taking diseased meat into the alimentary canal. A fungus was discovered in the meat and one which was identical with it growing in the intestines, even penetrating the lining epithelial cells. Walder in 1878, Bollenger in 1881, and Klein in 1885 studied the

diarrhœal diseases of infants, and found that numerous micro-organisms, micrococci, vibriones and bacilli were always present in the intestines in these affections, but as yet no specific germ has been demonstrated.

(3) *The Ptomaine Hypothesis*.—Ptomaines, the alkaloidal substances formed by putrefaction, are now attracting great interest in their relation to disease. Le Bon sent a communication to the French Academy of Medicine giving the results of his investigation of the cause of cholera and choleric form diarrhœa in India. The sacred ponds in India are often pools of stagnant water where the pious devotees of Brahma make their ablutions. Le Bon observed that Asiatic cholera and diarrhœa prevailed in the vicinity of one of these ponds. A chemical examination of the air and water revealed, besides the usual micro-organisms and gases, a ptomaine which he believed to be the cause of the diarrhœal affection. "When air containing this ptomaine was inhaled for a long period the subject would be affected with true cholera, often of a fatal character, but when inhaled for a short period only, a choleric form diarrhœa was produced." In other words the character of the disease produced depended upon the dose of ptomaines taken into the system.

V. DIETETIC CAUSES.

Dujardin-Beaumetz has said that "the new-born infant is a digestive tube served by organs, and these organs are fitted to assimilate but one kind of food—the mother's milk." When food that cannot be digested is taken into the alimentary canal it undergoes putrefactive changes, and poisonous and irritating substances are formed, which induce inflammatory changes and diarrhœa. Probably the greatest discovery in physiology which has been made in this century is that of Armand Gautier, who has demonstrated beyond peradventure that the cells of animals as well as plants secrete alkaloids, substances which he has called *leucomaines*. These alkaloids are almost identical with those formed in plants; some act like strychnine, others like muscarine. Indeed Brieger has succeeded in transforming neurine, a

harmless animal substance, into muscarine, a very poisonous alkaloid, by leaving it exposed in an aqueous solution to the air. A plant, when the atmospheric conditions and the character of the soil are not adapted to its growth, will form abnormal alkaloids, become diseased and die. It is quite probable that the cells of animals will act in the same manner, forming abnormal alkaloids and producing an auto-intoxication when the food and surrounding atmosphere are unsuitable, especially in the case of infants, whose organisms have not yet acquired the power of resisting untoward influences. Ptomaines are always present in the intestines. Tanret has obtained them by placing alkaline salts in contact with peptones. Brieger has found them where meat has been digested by gastric juice. When the intestinal membranes are in a normal condition and when the food is properly digested, the alkaloids are not absorbed into the blood, or are not of a poisonous character. But when putrefaction instead of digestion takes place in the alimentary canal, abnormal alkaloids are formed which, when absorbed through the intestinal membranes, produce a toxæmic diarrhœa*. It is, moreover, probable that the congested intestinal mucosa will absorb substances which would not be taken up by the healthy membrane, just as the mucous lining of the bladder, when inflamed, will absorb readily what could not possibly be taken up in health. May we not explain the convulsions of infants so commonly observed in hot weather, by the absorption into the blood of an excessive quantity of these leucomaines, which resemble strychnine in their action? And is it not quite probable that some of the forms of diarrhœa—the choleraic, for example—are simply manifestations of an effort of nature to eliminate the poisons from the system?

Even the mother's milk will at times produce diarrhœa in

*At the Seance of the Paris Academy of Medicine, May 17, 1887, Hayem presented a communication on the treatment of dyspepsia of infants and the green diarrhœa of children. Having observed that the arrival of a child affected with green diarrhœa was the signal of an epidemic of this affection among the children in the crèche, Hayem suspected that the disease was of a contagious character and ordered a thorough disinfection of the stools and soiled clothing. As a result the epidemic immediately began to disappear. In connection with Dr. Lesage he has demonstrated that the green color of the stools is produced by a special bacillus which secretes a green substance during its development in the intestine. Hayem finds lactic acid the best germicide for the destruction of this bacillus.

the infant. When the mother is in ill health, when she becomes pregnant, and sometimes when the catamenia re-appear, changes take place in the milk which render it unfit for food. In some of these cases colostrum cells are detected, which account for the purgative action; in other cases nothing can be discovered to explain the effects observed. If nursing women take an excess of nitrogenous food, diarrhœa will be produced in the infant, especially in hot weather. In these cases there is an excess of casein in the milk. This casein is in part converted into peptones in the stomach, and the peptone alkaloids may be formed in too great quantities to be properly disposed of without inducing diarrhœa. When children take an excess of nitrogenous food it cannot all be disposed of in the construction of tissues, and an attack of diarrhœa and vomiting, with febrile disturbance, is produced to destroy and eliminate the waste products. To use the words of Fothergill, "There is a grand cleaning up, accompanied by a bonfire." Overfeeding, then, may be given as one of the causes of diarrhœa, even though nothing but mother's milk is given.

When infants obtain their milk from wet nurses the mortality is nearly double that of children nursed by their mothers. One of the best things which can be said of the good Queen of England is that she nursed every one of her ten children at her own breast. In some countries wet-nursing is the "trade," as Monot calls it, of thousands of women. But few of the well-to-do women of Paris nurse their own children. The wet nurses come from the country about the metropolis. During twelve years, in the village of Montsauche, 3,950 women were confined, and 2,710—nearly 70 per cent.—became wet nurses, 1,260 bringing children to the country and 1,450 going to Paris. During this period the mortality of the children of Montsauche, under one year of age, was 33 per cent. During sixteen months, in 1870 and 1871, when Paris was besieged, the women could not procure their infant charges from the city, and the mortality immediately dropped to 17 per cent.—about one-half. This statement needs no comments to show the immense

superiority of maternal lactation. In Scotland wet nurses are almost unknown, and the infant mortality is the lowest in Europe—11 per cent. Even in Ireland, that land of famine, filth and fights, the infant mortality is but 14 per cent., a fact largely due to the universality of maternal lactation. Nature seems to adapt the milk of the mother to the wants of the child according to its age, the milk of another woman being liable to cause indigestion and diarrhoea.

In our country, as in Scotland, the wet-nurse trade is almost unknown. But we have a far more reprehensible substitute—the nursing bottle. When the foundlings of New York were sent to the alms-house, one that attained the age of seven months was looked upon as a curiosity. Of the bottle-fed infants in the “baby farms” near Paris, 71 per cent. die during the first year. In New York more than one-half of the dry-nursed infants, under six months of age at the beginning of the hot season, die of diarrhoea before the summer is passed, and in the “baby farms” the mortality is even greater.

In the Edward Street Infant Asylum, of Buffalo, the Sister Superior informed me that if a bottle-fed baby lives to be three months old, even in winter, they think they have done remarkably well in preserving it to such a mature age, and in the summer to bring a foundling there is only a step before taking it to the cemetery. Furthermore she stated that 75 per cent. of the foundlings taken there died whether they were wet nursed or “brought up on a bottle.” So great has been the mortality and so discouraging have been the results, that she now refuses, as far as possible, to take foundlings in the institution. Last year more than three-fourths of the babies had their mothers with them, and yet the mortality was over 40 per cent. In reply to my question as to the nature of the diseases of which they died, she said that some seemed to waste away, but in summer they have diarrhoea and inflammation of the bowels. Those that are not nursed by their mothers, she said, have “one cow’s milk from the country.” In view of these facts, we must grant that the great fame acquired by Mrs. Joseph Gargery for having brought Pip up

by hand, was exceedingly well deserved. In countries where dry-nursing is rare, the second summer of the child's life is considered most dangerous to its health, a fallacy which has been brought to our country by many foreigners.

A large share of the mortality from diarrhœal affections must be attributed to the use of unhealthy milk. In Holland, she asses are driven about the streets and milked before the houses where bottle-fed infants are found. It is said that the mortality among children thus nourished is exceedingly low. Competent authorities state that next to the milk of the mother, that of the ass is the best adapted to the infantile digestive organs. But asses' milk is not obtainable here, and even in Paris it brings \$1.50 per quart. We are accordingly obliged in cities to content ourselves with milk which is supposed to have been derived from the cow. It is absolutely impossible to obtain fresh milk, and we are extremely fortunate if we can procure that which has not undergone partial decomposition.

Cows' milk will produce diarrhœa in children under the following circumstances :

(1) Where the milk contains colostrum. This substance is normally present in milk for a number of days after parturition ; it is also secreted when the udder is inflamed, and when the cow is in poor health.

(2) When the diet of the cow is improper. It is a well-known fact that poisonous substances taken in with the food will contaminate the milk. A large number of children in Rome, fed on goats' milk, were poisoned, the symptoms being vomiting and diarrhœa. It was found that the food of the goats contained colchicum, and the alkaloid of this plant was detected in the milk. An enormous quantity of refuse from starch and glucose factories, and from breweries and distilleries, is fed to the cows in and near cities. A thorough chemical examination of these waste products has never yet been made. There are many organic chemical compounds which have not yet been isolated in the laboratory, and it may be some of these which pass into the milk and cause the dyspepsia and diarrhœa of infants. It

is a well-known fact that the milk of women and grass-fed cows is alkaline, while that of stall-fed cows, when starch refuse is used, is acid, and ferments rapidly. Fermented milk will almost invariably cause gastro-intestinal disturbances in infants.

(3) The milk may become contaminated after it has left the cow with substances which will produce diarrhœa. Milk will absorb gases and sustain the life of micro-organisms. Lister considers it the best culture fluid in existence. Nature never intended that milk should be splashed in wagons about our streets in hot weather, poured from can to pail, from pail to pitcher, and fed to the baby perhaps 24 hours after it has left its native fountain. Such milk is of necessity in a state of decomposition, and decomposition means the formation of chemical substances which are in many cases poisonous, a fact which has been demonstrated by Dr. Vaughan of Mich., who has succeeded in isolating tyrotoxicon from samples of poisonous milk and cheese.

Much of the milk is now transported in air-tight bottles and people erroneously believe that fermentation is thus arrested. This is not the case, however, if the milk has not been boiled before being placed in the cans. If the milk is placed in the cans before it is cooled, and the morning milk is seldom cooled, fermentation goes on in the can and poisons are formed. Selmi has shown that the ptomaines formed when oxygen is deficient, as it must be in bottled milk, are far more poisonous than the ptomaines formed when oxygen is abundant.

Lastly, the ingestion of food not adapted to the age of the child will cause diarrhœa. It is not until the child has cut its first teeth that the glycogenic ferments are found in the salivary and pancreatic secretions, and until these ferments are formed, starches cannot be digested, but undergo decomposition, producing what Dujardin-Beaumetz calls putrid dyspepsia, an affection always attended by diarrhœa. If carbohydrate food is given at all before the first dentition, it should be in the form of maltose or grape sugar.

Moreover, the gastric juice in early life is deficient in pepsin.

For this reason nitrogenous food, other than milk, should not be given in large quantities.

Fruit in cities is a dangerous article of diet for children. It is picked when green to avoid early decay, and often lies in markets and groceries surrounded by decaying vegetables, and is sometimes liable to contamination from sewers, as is the case in our Elk Street Market. In the country enormous quantities of fruit are eaten by the children, and yet it seldom does harm unless it is unripe or matured too early on account of disease. But stale fruit contains poisons which will almost uniformly produce diarrhoea.

PREVENTIVE MEASURES.

From a review of the above conditions which predispose to diarrhoeal diseases in children, we can easily deduce methods for their prevention. As the liability to these diseases varies inversely with the age, especial care must be exercised in the management of early infancy. And it will also be observed that male children will require more careful attention than female. By increasing the comforts and intelligence of the working classes, by removing their vices, we will greatly reduce their infant mortality.

Foundlings and illegitimate children should not be kept in asylums or alms-houses in the city, but should be sent to some establishment in the country, like the Thomas Wilson Sanitarium for children of Baltimore, where the best care and suitable food can be provided.

In hot weather the children should be kept out of the heat, and sudden chills should be avoided. Damp night air is especially to be feared. The bath should be given during the heat of the day, and not in the morning or evening. A flannel bandage should be worn over the abdomen to prevent sudden chills. All filth and dirt about the house or premises, such as foul garbage barrels, stinking privy vaults, or foul sewer receivers, should be looked upon as poisons liable to produce diarrhoea and death.

The municipal authorities should see that good water, adequate drainage and sewerage, and clean streets are provided in all sections of cities, especially in summer. Water should be given to the baby frequently during the hot season. Mothers should, as far as possible, nurse their own children during the first nine or twelve months of life. Children should never be weaned just before or during the hot season; that is, not later than May or before October.

When cows' milk is used it should be boiled and cooled before using. In this way not only are micro-organisms and poisons largely destroyed and fermentation arrested, but the milk is rendered more digestible. The milk should, if possible, in summer be boiled and bottled at the dairy. A careful surveillance of the milk supply should be exercised by the health authorities in all cities, as the evil too often exists in the food supply and condition of the cows.

During the first six months of life the diet should be milk, and milk alone, then a small amount of starchy food may be added, while meat should not be given before the child is three years of age. At this age also, fruit may be added to the diet, but uncooked fruit should be avoided in cities during the hot season.

Lastly, when cases of cholera infantum or green diarrhœa make their appearance in any locality, the physician should insist upon the careful disinfection of the alvine discharges and soiled clothing with lactic acid or strong solutions (1 per cent.) of corrosive sublimate.

31 Franklin street, Buffalo, N. Y.

*ABSCESS OF GALL-BLADDER.**

CHOLECYSTOTOMY.—RECOVERY.

BY HENRY L. ELSNER, M. D., SYRACUSE, N. Y.

On the 31st day of October, 1886, at about 9.30 P. M., I was hurriedly summoned to see W. S., aged 52 years, a furrier by

*Read before the Central New York Medical Association at Syracuse, N. Y., May 17, 1887.

occupation, a good liver, previously healthy, with the exception of constitutional syphilis thirty years ago, and two attacks of biliary colic, one twenty, the other ten years ago. The day upon which I was called was Sunday. He had rested, felt well, his bowels had moved regularly, and he had no symptoms which might lead him to anticipate the approach of disease. About 9 o'clock P. M., he was suddenly taken with a severe and acute pain, radiating from the right hypochondriac region backward, downward and upward. The pain was so severe that with every paroxysm of pain he had tonic and clonic contractions of the muscles of the extremities. He was unable to take the recumbent posture, but sat on a sofa, bent forward, his elbows resting upon his thighs, while his hands were pressing forcibly and continuously against the abdominal wall. There were moments when the pain was less severe, but at no time did he enjoy freedom from it. The severe pains recurred at intervals of from three to five minutes, with the convulsive movements attending. He vomited large quantities of a grass-green fluid, with abundant mucous. At times the free emesis seemed to relieve him for a few moments. The pain was so intense, the suffering so acute, added to the inability of the patient to lie down, that I was unable to make an examination of the abdominal organs or take his temperature. The pulse was 113 R. 20. A quarter of a grain of morphia was injected hypodermically, and repeated in half an hour, the first having failed to ameliorate the pain. In about twenty minutes after the second injection, the pains recurred at longer intervals, but the patient complained of great tenderness and soreness over the region of the gall-bladder. It was almost one o'clock A. M. before he could lie down, and then the pain recurred at intervals of one-half hour, with decreasing severity. He vomited several times during the night, and slept about one hour; by morning the acute pains had disappeared, the patient was able to walk out into the street contrary to my orders, and rode in a coupe to his place of business. These acute pains never returned during the subsequent history of the case.

November 1st—Able to sit up; unable to stand erect; the region of the gall-bladder seems swollen, abnormally prominent, very sensitive to pressure. He was ordered 10 grs. of blue mass, followed by an alkaline cathartic, also the phosphate of soda with a bitter tonic T., P. and R. normal; no vomiting.

November 2d—Able to walk up-stairs to his room in the second story, but bent forward.

November 3d—Slightly jaundiced; some nausea; no vomiting; T. normal.

November 4th—Complains of pains when moving; no other noteworthy symptoms.

November 5th—T., P. and R. normal. Still walks bent forward; no pain, but tenderness as before. Physical examination negative.

From the 6th to the 13th there were no new developments, but the patient seemed to improve and to gain strength, though he did not walk as erect as formerly. On the 13th of November the glands in the right axilla were enlarged to the size of a goose egg, and the chain of glands extending to the elbow was also enlarged and tender. Tincture iodine was used locally, and the iodide of potassium internally.

December 8th—The swelling of the glands somewhat improved. A tumor can now be felt, occupying the right hypochondriac, right lumbar region, extending downward to the left, into the umbilical region, an inch beyond the umbilicus. It is hard, smooth, not painful to the touch, without fluctuation; the fingers can reach around its free border, and it is continuous with the liver dullness. The K. I. was continued.

December 11th—The axillary and bacial swellings have disappeared. The abdominal tumor has increased in size, while both extremities are œdematous, the right more than the left. From the 11th to the 29th of December the symptoms remained much the same; there was a continuous dragging sensation, referable to the right hypochondriac region; the extremities continuing œdematous, the right more than the left; the bowels confined except when relieved by Carlsbad salts. The pulse

averaged 110°, T. 100, R. 20. Emaciation was progressive, appetite good, food well digested, and no vomiting.

December 29th—Dr. Didama saw the patient with me in consultation. The diagnosis was not made positive, though the doctor thought the tumor had an amyloid feel and might possibly be due to an amyloid and enlarged liver. The even enlargement with the previous history of constitutional syphilis seemed to strengthen this conclusion. The iodide was continued.

February 7th—The swelling can be distinctly outlined. It lies in the right hyp., lumbar and umbilical region, further downward and to the left than when last seen. Upon careful palpation, a slight fluctuation is perceptible to the right and about one-eighth of an inch from the umbilicus. This fluctuation extends upward towards the median line for about one inch. Around this line of fluctuation the tumor presents the usual hardness. Introducing a hypodermic, I withdraw a yellowish green fluid and pus. The pus looks healthy, the fluid contains abundant cholestrine plates, visible on microscopical examination. This aspiration, with previous history and microscopical examination, convinces me that we have a distended gall-bladder and abscess with which to deal. The patient growing more feeble and pressure symptoms developing, I decided to carefully, and under strict antiseptic precautions, cut into the swelling, following the line of fluctuation, introduce a drainage tube and wash out the cavity, as a last resort. The patient consented, and on the 9th of February I carefully dissected through the abdominal walls, and, following the line of fluctuation, caught the distended gall-bladder, incised it* and gave exit to one pint of pus and bile. The pus was laudable and thick, the bile of a yellowish green color. Air rushed in and out of the cavity freely; the finger being introduced, could not feel the bottom of the gall-bladder. The cavity was washed out with a 1:5000 solution of chloride of mercury. A drainage tube was introduced and an iodoform dressing fastened over the opening by means of a roller bandage. This abscess cavity was washed out daily with

*The walls of the gall-bladder at point of incision were adherent to peritoneum.

a 1:300 solution of carbolic acid. At no time was there elevation of temperature; the sallow color of the patient disappeared; the tumor gradually became smaller; the œdema of the extremities was relieved; the draining and washing out was continued until there was no further discharge of pus, and by March 1st the tube could no longer be introduced.

On the 9th of March there was considerable redness and tenderness along the original line of incision. This was again opened and a drainage tube introduced, two ounces of pus escaping. The drainage tube was left until March 30th. For a few days there appeared to be a small fistulous opening, but this granulated and healed. Since April 3d the patient has been perfectly well, the gall-bladder has contracted, become adherent, or possibly obliterated. There is no sign of the original tumor, while physical examination fails to reveal the slightest abnormality.

PNEUMONIA WITH EMPYEMIA.

RADICAL OPERATION—RECOVERY.

Mrs. H., æt. 65 years, previously healthy, was taken ill on Friday, March 11, 1887. She had had repeated slight chills with a final severe chill, nausea, retching and a short, hacking cough with a moderate amount of expectoration. There was some pain in right side over hepatic dullness and an occasional stitch over the lower part of right thorax posteriorly. A physician who was called diagnosed pneumonia. When I saw her on Monday, the 14th of March, the expectoration had become rusty, the pain in the side somewhat relieved, though still acute, her general condition so alarming that the attending physician had given an absolutely bad prognosis, and the family was momentarily expecting death to relieve her sufferings, without making any effort to avert the expected end. Her pupils were dilated, face cyanosed, extremities cold, surface covered with a cold perspiration, abdomen distended and tender, tongue dry, with a brown streak extending backward through its center. The pulse (to which I wish to call your attention most particu-

larly) was irregular, intermittent, and at times dicrotic, averaging 130 beats per minute; R. 36; T. 101.

Physical Examination. Inspection—The right thorax in its lower segment was somewhat larger than the left. The sixth and seventh intercostal spaces were more convex than normal, while the respiratory movement was somewhat limited on the right side. Vocal fremitus was abolished over the lower segment of the right lung for about two and one-half inches upward from base; beyond this for one and one-half inches the vocal fremitus was normal, and over a patch as large as a small fist above vocal fremitus was increased. *Percussion* gave absolute flatness at the base of the lung over a space corresponding to the abolished vocal fremitus, above this normal resonance and over the space of increased fremitus absolute dullness. *Auscultation* gave abolished breathing over the lower part of the right lung, absence of voice sound, above this œgophony, and over the dull patch above there was bronchial breathing, crepitant and subcrepitant rales, a number of larger rales with increased voice sound. Physical signs, therefore, clearly showed that there was slight effusion into the right pleural cavity to a level corresponding to the œgophony; that a space between this and the dullness above was occupied by normal lung tissue, and that the dullness above, with the other physical signs, proved conclusively that we had pneumonic infiltration. The hyperdermic needle proved this conclusion to be correct. The fluid withdrawn was characteristic of ordinary serous effusion. The alarming condition of the patient, with the failing pulse, gave indications for heroic treatment. The patient was given 10 M. of tincture of digitalis, hypodermically, and then repeated by the mouth every hour until the pulse became more tense, regular and less frequent. To this was added from one to two tablespoonfuls of whisky, the patient and pulse being carefully watched for the physiological effects of digitalis. The next day the patient had an irregular and intermittent pulse, though of a better character — 120 per minute; was delirious; had herpes vesicles upon the lower left eyelid and upper lip; T. 100; R.,

36. The digitalis was continued at longer intervals; flax-seed poultices with mustard placed over thorax. By Wednesday, the third day of my attendance, the pulse was regular—95 per minute; T. 100; R. 20. Physical signs the same; sputa rusty; cough painful. The digitalis was discontinued, nitro-glycerine and carbonate of ammonium being substituted.

March 17th—T. 99 4-10, P. 95, R. 30. Physical signs unchanged; less delirious; urine examined with negative result, save diminution of chlorides; sputa still rusty.

March 18th—T. 99, P. 100, R. 20. No resolution in pneumonic patch; bronchial breathing with few rales.

From Sunday, March 20th, until the following Saturday, the temperature remained normal, R. from 23 to 30 per minute, pulse from 80 to 90; but there was a decided increase in the physical signs, denoting effusion into the pleural cavity, with accompanying dyspnœa. It now appeared to me that the patient had progressed sufficiently to allow surgical interference for the relief of the pleural effusion, the pneumonic symptoms having entirely disappeared. You will have noticed in following this history, that the temperature never reached beyond 101; that after the first day of my attendance it never reached beyond 100, and that the average was not more than 99°. At the first examination of the patient, the hypodermic withdrew a clear serum; therefore, I expected, with such a train of symptoms as I have given, more particularly with the low temperature, *almost absence of fever*, to withdraw a clear serous fluid by means of the aspirator.

On Sunday, March 27th, assisted by Dr. Totman, I aspirated, and withdrew *two pounds of pus* from the right pleural cavity. We were prepared for serum, but were surprised to find the effusion purulent. The pus was so thick that it flowed slowly and with difficulty through the cannula. The temperature was 99, R. 36, P. 96, dyspnœa increasing. The aspiration was not beneficial, the flatness increased, and with increasing symptoms of lung compression, I decided to do the radical operation for empyema.

Wednesday, March 30th, under strict antiseptic precautions, without spray, assisted by Dr. Totman, I made a free incision in the seventh intercostal space, about one inch long, the center of the incision forming a right angle with a line drawn from the angle of the scapula downward. This was done without ether, after thoroughly freezing the part. A drainage tube was introduced, and about one quart of pus escaped. We did not hear air enter through the incision after the operation, though it found entrance into the thorax through the tube during the second dressing. The patient bore the operation heroically, and never had a temperature above 99 after the operation. There is nothing noteworthy in the subsequent history, for the patient continued to improve, and is now able to sit up and walk about the house. The tube was made shorter at each dressing, and on the 18th of April it could no longer be introduced. Though the lung is not yet fully expanded, the percussion note is improving, and more air is entering the once consolidated and compressed lung. The medical treatment, after the aspiration, consisted in the use of tonics, with nutritious diet, and the best ventilation the surroundings afforded. Without the presence of a specific infection, there can be no empyemia. To this, most modern authorities subscribe the germ of empyemia, and the infecting micrococcus of pneumonia are distinct.

This case was originally one of pleuro-pneumonia; later the germ of empyema was superadded. We conclude, therefore, from this case and its history: 1st. That two specific and different germs can attack a patient at or nearly the same time and produce two different diseases, or change the complexion of the already existing disease.

2d. That there can be empyemia without elevation of temperature, and that the amount of pus may constantly increase without other than pressure symptoms.

3d. That the original pleuro-pneumonia may have been so modified by the germ of empyemia as to prevent the usual high temperature; for it is now well established that poisons in the blood, such as urea in cases of pneumonia, occasionally preclude

the usual high temperature, and that such cases pass through the various stages without elevation of body heat.

4th. If pneumonia is complicated with empyema, early evacuation is indicated certainly as soon as the pneumonic symptoms are relieved.

5th. If life is threatened, it is injudicious to wait for the disappearance of the pneumonia before doing the radical operation.

6th. That the radical operation is indicated after a single aspiration, if the symptoms are not relieved, as the physical signs continue or increase.

7th. That the radical operation is always indicated in adults unless the purulent effusion be small.

8th. That washing out the pleural cavity is not necessary unless there are symptoms of constitutional sepsis, showing themselves by fever, delirium and other symptoms.

9th. That in heart failure from pneumonia, digitalis or other heart tonics must be given to their physiological limit, the patient being carefully watched by the physician or a trained nurse.

Correspondence.

THE METRANOIKTER—SCHATZ'S.

Having missed, so far, a communication in regard to this valuable and simple instrument in our literature, as well as its appearance on the market of instruments, I take the liberty to communicate something about it to the readers of the JOURNAL, though I have never tried it, because of its aforesaid absence in the instrument market.

It stood the test of 150 applications in Schatz's (the inventor's) hands, and it is *a priori* so feasible that I do not doubt its merits. Rather astonishing this silence in the English literature, for Schatz's publication dates from October, 1881.

The instrument is destined to substitute a metallic, that is,

an undubitably antiseptic, for the former respectively present slow dilators of ambiguous character in regard to sepsis; for the sponge-tents, laminarias, and tupelos.

Some may think that the instruments for rapid dilatation suffice, but I do not believe that it is possible to expand a virgin uterus sufficiently for one or two fingers without earnest danger by the rapid dilators. The minimum danger is production of rents in the os internum and externum; and narcosis is unavoidable. The metranoikter works in a more physiological way; it softens the uterine tissue without tearing.

The instrument is exceedingly simple, consisting of a steel rod 55 mm. long, of 5 mm. diameter, split in two halves (length-wise). Both halves are connected together by a spring in the shape of a half moon. The spring possesses a power of 3 to 5 kilo's, which power ought to be tested on a spring scale. This power keeps the ends of the steel rods 50 mm. apart, so that after a dilatation of the uterus to 30 or 40 mm., a certain resistance remains. If the uterine channel is less than 5 mm. diameter, the primary slight dilatation necessary is effected with conical common bougies, to introduce the metranoikter into the uterus easily. The spring possesses two buttons, which are pressed towards each other with a specially-constructed forceps, or with some other, so that both halves of the intra-uterine stem touch each other. The os is held with a tenaculum, and the stem slipped in. That can be done in situ or preferably in the Sims situation, while the uterus is pulled down somewhat. Before introduction the operator has to know, of course, the situation and degree of mobility of the womb, and further, the vagina must be repeatedly disinfected with reliable disinfectants. Finally the forceps is removed, and the vagina syringed again with a disinfectant (2 per cent. carbol.), and the situation of the metranoikter controlled. In twelve to twenty-four hours the uterus is expanded to admit a finger. If the tip of the finger can enter between the branches of the metranoikter in situ, it will surely go to the fundus after its removal, because the ends of the intra-uterine stem will stand further apart than their bases. This is a

great advantage of the instrument, as tents give often the dissatisfaction to effect a full dilatation of the external os, while the os internum remains too narrow. If an introduction of two fingers is desired, after the withdrawal of the first, a stouter instrument is introduced (10 mm. thickness). Generally, twenty-four hours are fully sufficient. Schatz saw the temperature rise twice, but only after thirty-six hours. Bleeding, even where the tendency to such prevails, is insignificant, because of the tension, and for inducing abortion, as well as for dilating strictures, it has served admirably. Whoever is very scrupulous over anti-sepsis, can syringe the uterus while the metranioikter is in its cavity, by syringing with a slender (Braun's) syringe between the branches. Such intra-uterine washing is, of course, necessary after the proceeding is finished for which the dilatation has been begun. While the instrument is inside, the patient will have labor-pains, but usually only for six to ten hours. These may necessitate the administration of anodynes, as with the use of tents, though Schatz asserts that he could get along without anodynes.

DR. M. HARTWIG.

P.S.—May be that anointing the instrument with a concentrated cocaine salve could do a good deal to prevent pain or vomiting, which is liable to occur, or a gelatine bougie with cocaine could be introduced first for about ten minutes.

Mr. Henry Herman, 9 West Huron street, will soon have some of these instruments ready.

Society Reports.

ERIE COUNTY MEDICAL SOCIETY.

SEMI-ANNUAL MEETING HELD JUNE 15, 1887, AT Y. M. C. A.
BUILDING.

The meeting was called to order at 10.30 o'clock by President A. C. Strong, M.D. After the reading of the minutes, the following

applicants for membership were duly elected : Drs. Jacob Goldberg, Harry A. Wood, Bina A. Potter, J. S. Meindenbauer, George W. Cutter, William A. Hoddick, George Palmer, Julius Pohlman, and Roland Miller.

In absence of Dr. Barker, Dr. Hopkins presented to the society a copy of the proposed by-laws, prepared by the committee. Upon examination, it was found that a clause relating to the examination of all students desiring to enter members' offices by the Board of Censors as to their education in English, as well as Latin and Greek, had been omitted from the new by-laws. Dr. Hopkins claimed that it was an error of the printer, and advocated its restoration. Some of the members thought it was unjust to require a high degree of literary scholarship as a pre-requisite to admission to the study of medicine, and protested against the clause requiring six months' study of Latin. After much spirited debate, the section under discussion was adopted as one of the by-laws.

Another section providing that five members should constitute a quorum to do business was objected to, and the number was raised to fifteen.

Dr. Storck then presented the following report from the Board of Censors:

By some articles that appeared in the local press, and also the statements made to us by members of this society and the Civil Service Examiners, the attention of your board has been called to the examination of applicants for the position of City District Physician of the fifth district made by the Civil Service Commission, and also the results and facts thereby developed; that we deemed it our duty to take official action thereon, and report the same to this society.

Through personal inquiries we have gained reliable information that all the applicants were graduates of recognized medical schools and legally registered at the County Clerk's office, but nearly all have so signally failed in the attempt to pass the examination, and have shown such gross ignorance of the medical science and a total want of a literary or classical education, their written work having been so poor and defective in spelling that at the first examination not one of them reached the lowest standard of sixty, set down by the commissioners, and all were rejected. The Board of Health in its mercy passed a resolution requesting the examiners not to publish the names of those physicians, as it might do them injury in their private practice. These facts have been published by the local press.

As a sample of the "good English academical education" as required by law, but which rather shows the blissful ignorance of the writer of the Eng-

lish language—say nothing of Latin and Greek—we annex an extract of a letter written by one of those applicants, a graduate of one of our medical schools, which was sent to the board. Leaving off names, the copy is verbatim.

“Mrs. S. B.——: I want you to git som one to go on that Bond for you at once as it is necery for me to with draw myne at once, if you due not git any one there will be some trubell as I have got to with draw

and I want you to Setell your Bill with me at once or I will have to sue you for the amount and git judgment.

I can not wait on you any longer than tomorrow at 10 o'clock A. M.

Yours, ets., DR. B.”

The author of this literary production is no foreigner; he is a native of the State of Ohio; he had the opportunity this country offers to acquire a common school education, which he certainly should have had before he became a student of medicine and acquired the title of M. D.

Some of the written examinations before the Civil Service Commissioners were in about the same style, if not worse.

Taking these deplorable facts into consideration, your board has come to the conclusion that the by-laws of the Medical Society of Erie County have been disregarded and flagrantly violated by some of its members in having admitted to their offices as students of medicine such applicants, without the necessary certificates of the Board of Censors, as prescribed for in our by-laws; or, on the other hand, the State law, the charter of the medical college has been violated through its faculty granting a diploma to a candidate who has not produced a certificate of his preceptor, setting forth that he has studied medicine with him, in compliance with the requirements embodied in the charter of every medical college in this State.

A city ordinance relating to the appointments for the offices of district physicians by the Board of Health provides that “the appointee must be a member in good standing of the medical profession.”

Your board holds that, while a person holding a diploma of a recognized medical school and having made the required registry, is recognized by the law of 1880 as a legal physician, he is not, in pursuance of a former law, which is as claimed by able lawyers of New York, still in force, a legal practitioner, if he has not become a member of the county medical society where he resides, as provided by a section of said medical law. He could, therefore, not be a member in good standing of the medical profession and would not be eligible for those offices.

A bill that has emanated from this society has been pending in the State Legislature the last two sessions: “To Create a State Board of Medical Examiners.”

The existence of such a commission, empowered with the authority as the act provides, would probably stop the abuses of medical colleges graduating annually a large number of candidates that are incompetent and unqualified to enter upon the practice of medicine. It would elevate the standard of the

medical profession in this State; but by some persons, actuated by mercenary motives and self-interests, the passage of said bill has until now been prevented. Our legislators seem to hold these personal interests higher than the interests of the people and the medical profession. The Board of Censors would, therefore, propose to take the next step in the way of reform, hoping that other county medical societies in this State will follow the example.

The following resolutions were offered for adoption by the society:

Resolved, That the committee on membership is hereby directed to strictly adhere to the provisions of Sec. 6, Art. VI. of our by-laws."

If, after careful examination of the credentials of the applicant, a majority of the committee come to the conclusion that his diploma was acquired by him, or granted to him in violation of the State Medical Law, and the by-laws of this society, then the application shall be rejected by the committee and reported to the society. Also:

Resolved, That the Board of Censors is hereby directed to report at the next annual meeting and at every subsequent regular meeting of the society, the name of any member known to the Censors who shall, during the time, have admitted to his office as a student of medicine any applicant without having received of him the necessary certificate of the Board of Censors, as provided for by Sec. 5, Art. VI. of our by-laws."

The board would also recommend the following resolution for adoption:

Resolved, That it is the sense of this society that the present mode of examination of applicants for the offices of District City Physicians and Health Inspectors by the Civil Service Commission and the appointment by the Board of Health on their recommendation is the only proper way to take these offices out of politics, to exclude ignorant and incompetent applicants and to secure the services of qualified physicians to the city poor. In expressing our approval of the action of the Board of Health, we would recommend to the same that the appointment of Health Physicians of Buffalo be also placed under the same rule of the Civil Service law."

Dr. John Cronyn objected to the expression, "The Board of Health in its mercy suppressed the names." As a member of the Civil Service Commission, he would state that the names of those who undertake the examination and fail to pass are never officially known. Candidates and their papers are numbered.

The report was then adopted.

Doctor Storck had lost his manuscript, and so made an additional verbal report as follows: He said that several times during the past six months complaint has been made to the board of the violation of the rule of the society against traffic in nostrums by one of its members.

Dr. Storck said that the offending member is sending out four-page circulars, the title page of which reads as follows:

"A Cure for Diphtheria, Membraneous Croup, Scarlet Fever, and all forms of Sore Throat. Prepared by John L. C. Cronyn, M. D."

Dr. J. L. C. Cronyn was notified by the Board of Censors of the complaint

against him, and told that he would be given a hearing by the society if he had anything to say in extenuation of his unprofessional conduct, but failed to appear.

Dr. John Cronyn arose and said that he desired it distinctly understood that he was not the John Cronyn referred to in the report, and that he had during his long professional life in the city never sustained such a course. He had nothing whatever to do with the present case. (Loud and prolonged applause.)

Dr. Green moved that the matter under discussion be laid on the table for six months, in the hope that in the interim it would adjust itself.

Dr. Hopkins said that if the society had a disagreeable duty to perform, the sooner it was done the better. He believed that some declaration of intention from some one qualified to speak for Dr. John L. C. Cronyn should be made, or else the society's censure should rest upon the offender and the fine be imposed. Dr. Fell moved that Dr. John L. C. Cronyn be censured and fined.

The Board of Censors have also come into possession of a pamphlet whose title page bears the words: "A Guide for the Road to the Goal of Health, with compliments of J. S. Langdon, M. D., Buffalo." The subject matter of the pamphlet consists of descriptions of private diseases and a declaration of Dr. Langdon's power to heal them.

The Board of Censors made inquiries at the Buffalo Post-office and were informed that the mail for Dr. J. S. Langdon was placed in a lock-box rented by Dr. J. S. Armstrong.

Dr. Armstrong was forthwith summoned before the Board and asked to give an explanation of his unprofessional conduct. He admitted mailing 3,500 of the pamphlets to persons residing outside the city, and claimed that the business was one which he would continue.

Dr. C. C. Frederick asked permission to state some instances of unprofessional conduct on the part of Dr. John L. C. Cronyn in addition to the charge preferred by the Board of Censors. He related three instances in which, while he was attending children for throat diseases, Dr. J. L. C. Cronyn paid unsolicited visits to the same patients and left bottles of his syrup.

The motion to censure Drs. J. L. C. Cronyn and Armstrong was then carried without dissent.

The society then adjourned.

Miscellany.

CLAIRVOYANTE DIAGNOSIS.—A physician in this city recently had under his care a case of typhoid fever. As the patient did not progress very rapidly toward recovery an officious relative consulted a notorious clairvoyante regarding the patient. She affected the usual

"trance state" and gave the following curious diagnosis which was copied by her daughter, who acts as amenuensis: "As I examine your case I find the membrain of the head has a watery fluid secreted in the membrain, which produces a sort of confusion and a roaring at the ears. The blood seems to loose its force of blood as it reaches the base of brain. this is caused by the strings of the kidneys drawing on the spinal nerves. this also is the cause of pain about the shoulder. I find both kidneys have been strained and the casings swell. I find the liver congested and filled with slime. this at times passes to the stomach, windpipe, left lung and throat. the left lung settles on casing of heart. I find a watery fluid between the heart and casing which causes the right ventrical and centre valve to be weak. the cough is caused by the left lung settling on the stomach. the stomach I find has been weakened by medicine, and I find a sort of white powder secreted in the casing of stomach and membrain of bowels, which is the effect of medicine. I find a little difficulty with bladder. I find a catching pain from hip to knee which has been caused from kidneys. I find the blood in a stagnant state, and the blood only quivers through the limbs.

"Take No. 5 with 10 Stomach Drops 5 times a day, and Tea of Sweet Balm and Poor Robin's Plantain."

As the clairvoyante had described only one symptom—the cough—in the case, the prescription was turned over to the attending physician.

THE CAUSATION OF MALARIAL FEVERS.—Dr. Jules Rouquette, in the *Bull. Gen. de Therapeutique*, claims that the poison-producing miasmatic diseases may be taken into the system either by the lungs or digestive tract. Pathological chemical actions are set up by the presence of the poison in the blood, but the fever will not develop unless the morbid leucomaines are formed more rapidly than they can be eliminated, when a high temperature is produced in the body to destroy them. In order that a locality may be "malarial," the following conditions must be fulfilled:

1. The air must come in contact with moist layers of soil.
2. There must be a temperature of at least 65° Fahrenheit.
3. There must be a persistent moisture of the soil.
4. There must be organic matter decomposing in the water or on soil recently covered by water.

5. There must be *beggiatoa* present in the decomposing mass. Beggiatoa are bacteria which live on the debris of organic matter, especially decomposing plants, and are most frequently found at the bottom of stagnant ponds. These bacteria decompose the sulphates of the water, liberating sulphuretted hydrogen gas.

LATENT GONORRHOEA.—Fritz Levy, in *Hospitals' Tidende*, publishes an elaborate article on this subject. The following are the conclusions of his paper:

1. The gonococcus of Neisser must be considered the specific cause of gonorrhœa.
 2. The gonococcus is found both in chronic and acute gonorrhœa, and may be concealed in urethral discharges of many years standing.
 3. The presence of the gonococcus in the secretion is intermittent.
 4. The intensity of the gonorrhœal inflammation is not always proportionate with the number of gonococci.
 5. In females the normal appearance of the vaginal and urethral mucosa is not a proof that the gonorrhœa is cured.
 6. Uterine gonorrhœa is a dangerous affection in women, as the inflammation may extend through the Fallopian tubes to the ovary, and even into the peritoneal cavity. In these cases a contagious discharge is secreted at intervals for many years.
-

LOSS OF WEIGHT IN TYPHOID FEVER.—Dr. H. Cothin has made a careful study of the variations in the weight of the body in cases of typhoid fever, and has arrived at the following conclusions:

1. Typhoid fever presents two periods, a period of loss and a period of gain. Certain accidents and complications can modify these, but the general rule holds good.
2. The loss of weight is due more to the excessive combustion of tissues than to the defective diet.
3. The loss of nitrogen and of weight varies directly with the intensity of the fever.
4. A careful study of the variations in weight are of value in prognosis, an increase indicating convalescence.
5. Complications augment the loss of weight.

6. The study of weight variations enables us to determine the best diet for typhoid fever patients.

7. The loss of weight in individual cases progresses each day in a uniform manner.

PUBLIC exhibitions of hypnotism, magnetism, mind-reading, etc., have been prohibited in Switzerland, on the ground that they tend to encourage quackery and increase the superstition of the masses.

WE have received from Dr. G. Apostoli, the eminent Parisian gynecologist, a monograph describing his new treatment of chronic metritis by means of the chemical galvano-cautery.

NEBRASKA has organized her first State Board of Health. The Board consists of seven physicians, of at least ten years' practice, the Governor being the appointing power.

GILLES DE LA TOURETTE reports, in *Annal Med. Leg.*, several cases in which young girls in the hypnotic state have been subject to criminal abuse.

IT has been demonstrated by Galtier that the germs of bovine tubercles exist not only in the fresh milk, but are still found in condensed milk, and even in cheese.

A TRAINING school for male nurses has been established in connection with Bellevue Hospital by the Commissioners of Charity and Correction.

LAST year there were 3,696 medical students in the University of Paris, 108 of whom were women.

Selections.

THE DURATION OF THE SYPHILOGENIC CAPACITY IN RELATION TO MARRIAGE.

Syphilis differs from other infectious diseases in its prolonged virulence and susceptibility of hereditary transmission. The influence

of both of these characteristics is modified during the course of the disease. As the disease advances, the virulent principle gradually loses its force and finally becomes exhausted. The length of time during which the disease may be communicated by direct contagion or by hereditary transmission makes the question of marriage a most important one, both from a medical and social standpoint. The question is often asked the physician, when may a syphilitic man marry with safety? The answer to this question not only involves the happiness and welfare of man and wife, but the possible offspring of this marriage union.

At one time the majority of syphilographers asserted that the contagious activity of syphilis began and ended with the chancre, but this view has been abandoned and it is now generally held that contagion ends with secondary lesions.

Dr. Otis divides the disease into two distinct stages, the one active, including the so-called primary and secondary stage and the second passive or so-called tertiary stage lacking in the contagious element; whilst Dr. Morrow asserts that secondary accidents may continue to recur for months or years after the chronological completion of the secondary stage with all the contagious property of that stage.

In other words, Dr. Morrow holds that the disappearance of the virulent principle does not always take place with the chronological completion of the secondary stage, but is extended into the tertiary stage. Dr. Morrow's views are based upon clinical experience, which shows that late lesions are exceptionally, but none the less certainly, the source of contagion. Holding this opinion, Dr. Morrow asserts that the contagious activity of syphilitic virus and its susceptibility of hereditary transmission cannot be considered to have ceased after a given period of time, as, for example, after the third or fourth year, whilst, as opposed to this opinion, Dr. Otis fixes the arbitrary period of three years, or at most at four years, as definitely marking the end of the contagious stage of syphilis in all cases. According to Dr. Otis' view, in the vast majority of cases there is a practical termination of the contagious stage of syphilis in three years, and if the patient has been persistently treated during this time, he regards marriage as permissible. Dr. R. W. Taylor believes that no law can ever be made defining with mathematical certainty just when syphilis will cease to be contagious. He thinks the keynote of the con-

tagiousness of syphilis can be treated in one word, treatment. "If a case of syphilis is taken early, and treated from the beginning of the secondary manifestations for two years, in the great majority its contagious character will disappear within that period or within two years and a half." It is thus shown that eminent syphilographers are not fully in accord upon this point. It is quite certain that the duration of the syphilogenic capacity in relation to the marriage cannot be wholly determined by arbitrary periods of time, inasmuch as the contagious principle and hereditary influence are both influenced by the manner of treatment and condition of the syphilitic subject at the time of marriage.

The discussion of this subject, published in the *Journal of Cutaneous and Genito-Urinary Disease*, (April, 1887,) is worthy of study by those interested in this branch of medical work. We present the following brief survey of the subject formulated by Dr. Morrow :

"1. The facts of every-day observations show that there is nothing constant in contagion, nothing certain in heredity. Many men marry with a syphilis in full activity of secondary manifestation and never infect their wives or transmit the disease to their offspring. These negative observations are, however, entirely valueless as a basis for estimating positive result

"2. The modern division of syphilis into secondary and tertiary periods, based upon anatomical forms and processes, does not furnish a safe criterion for determining the contagious character of the lesions.

"3. The chronological completion of the secondary stage does not always mark the definite disappearance of the virulent principle; clinical experience shows that late lesions are exceptionally, but none the less certainly, the source of contagion.

"4. While in the immense majority of cases the contagious activity of syphilis and its susceptibility of hereditary transmission cease after the third or fourth year, yet well authenticated observations prove in the most positive manner that these qualities sometimes continue in force much longer and may be manifest in the fifth and sixth years of the disease, and even later.

"5. The aptitude of syphilitic parents to procreate diseased children may persist after the cessation of all specific manifestations; the contagious stage of syphilis is not, therefore, the exact measure of the duration of hereditary influence.

"6. The precise date in the evolution of the diathesis when the

syphilitic organism undergoes that radical transformation which marks the limit of its contagious or transmissive power, does not admit of mathematical expression.

“7. It is probable that this limit varies in different cases and that many circumstances contribute to advance or defer it.

“8. The type of the syphilis, the constitutional peculiarities of the patient, the character of the treatment, the presence or absence of certain conditions which are recognized as factors of gravity in syphilis, all exert a modifying influence.

“9. All these elements should be taken into consideration in deciding upon the admissibility of a syphilitic man to marriage; each case should be studied upon its individual merits.

“10. The direct paternal transmission of syphilis without preliminary infection of the mother, may be classed among the most conclusively established facts of medical science.

“11. It is, therefore, a dangerous doctrine to teach that the sole risks a syphilitic man introduces into marriage consist in the contagious accident he may bear upon his person.

“12. The arbitrary designation of a limit of three, or at most four years, as perfectly safe for a syphilitic man to marry, with or without treatment and irrespective of the actual existence of specific lesions, is unwarranted by science or the teachings of experience.

“The conditions of admissibility to marriage formulated by Fournier are much broader, more scientific, more safe. These demand a mild or medium type of the disease, an advanced age of the diathesis, three or four years at the minimum, and a prolonged immunity, eighteen months to two years, from specific accidents; if these guarantees of safety are further fortified by sufficient specific treatment, a reluctant consent is given; marriage is tolerated rather than advised.”—*Maryland Medical Journal*.

ANOTHER REMEDY FOR CONSUMPTION.

Sommerbrodt urgently advocates the exhibition of creasote in phthisis, and claims that the results he obtained in five thousand cases treated with this drug have been surprisingly satisfactory. He gives capsules containing $\frac{3}{4}$ grain of creasote and $\frac{1}{8}$ grain of balsam of tolu, of which he orders one to be taken the first day, two the second day, and three on the eighth day, in water, one after each meal. The

second week he distributes in the same three periods four capsules, the third week five, and the fourth week six capsules. If the drug—which is stated to be generally the case—is well borne, six capsules are ordered daily for two months in succession. After discontinuing the capsules for a month or so, this medication may, if deemed necessary, be continued for one year. Patients have taken as much as six hundred to two thousand capsules without interruption. The usual hygienic and dietetic rules, of course, are to be strictly enforced besides. Save some eructation and occasional increase of the menstrual flow, creasote did not give rise to any secondary effects. The system becomes quickly and surprisingly accustomed to the drug. Very advanced forms of phthisis were not influenced by the treatment, while the initial phases, such as small infiltrations or catarrh, of the apex combined with hæmoptysis, showed very pronounced signs of improvement. Young individuals, particularly, were benefited by this treatment. The author obtained the same beneficent effects from creasote in the treatment of scrofulosis. The cough, even if caused by a copious bronchial secretion, yields promptly to this medication, and fever and sweats become likewise reduced. In numerous cases could the physical signs be no longer detected.—*Berlin. Klin. Wochen.*, No. 15, 1887.

ON HORNY GROWTH OF THE PENIS, WITH EXHIBITION OF A REMARKABLE CASE.—Dr. J. H. Brinton, of Philadelphia, read a paper on the above subject before the recent meeting of the American Association of Genito-Urinary Surgeons, exhibiting a specimen and referring to those on record. His specimen was from a man on whose penis a horn had existed more than four years, having started from a wart. The wart had itched occasionally, and the patient had scratched it for this reason. Gradually it turned into a horny substance. It caused no trouble, except mechanical interference with coition. The horn sprang from the base of the glans, at the coronary border, and was attached to both the glans and prepuce; it was one and seven-eighths inches long, one and three-eighths inches in circumference; it was curved forward. A peculiar feature in this particular case was the fact that the horny plate surrounding the meatus almost occluded the meatus, so that the urine passed only in drops. The urethra behind the horny plate was not contracted. The horn was cut off, and the man left the hospital after about three weeks.

The rarity of horny growths upon the penis was somewhat remarkable. He was surprised to find only fourteen cases recorded in English, German and French literature. A few more cases had been vaguely alluded to. They occurred either as well-marked projecting horns, or as rough, flat, horny plates occupying the glans penis; they were sometimes multiple. The longest on record was three inches.—*Maryland Medical Journal*.

STRICTURE OF THE FEMALE URETHRA.—*Dr. T. A. Ashby* reported a case of stricture of the urethra in a mulatto woman. The urethra was almost entirely closed and urine could only be voided drop by drop. One stricture was located at the external meatus and another about midway of the canal. The urethra would only admit of the passage of a very small probe. Dilatation was accomplished until a No. 12 catheter was passed. The cause of the stricture could not be altogether satisfactorily accounted for. There was no history of gonorrhœa or of syphilis. The mucous and submucous tissues surrounding the urethra were much thickened and indurated by a deposit of fibrous tissue without any discoverable local cause. Stricture of the female urethra is an exceeding uncommon condition and the literature of the subject is not extensive. In a paper recently read before the Obstetrical Society of London, Dr. Herman had only been able to collect the reports of twenty-three cases, six of which had occurred under his own observation.

The causes of stricture of the female urethra may be the same as in the male. In young and middle aged subjects, gonorrhœa, the cicatrization of chancroids, injury from childbearing, are the chief factors at work in the production of the condition. In old women, induration and thickening of the urethra-vaginal cellular tissue may cause a stenosis of the canal. The case reported by Dr. Ashby seemed to belong to the latter class, although the age of this patient was only forty years.—*Maryland Medical Journal*.

PERCUTANEOUS INJECTION OF FLUIDS INTO THE TRACHEA, EXTENSION OF THEM INTO THE LUNG, AND EFFECT ON THE LUNG AND THE WHOLE ORGANISM.—*Dr. Schrwald*, of Jena, in the *Deutsches Archiv. für Klin. Med.*, Bd. XXXIX., p. 163, reports a series of experiments, and summarizes the results as follows:

1. The perforation of the trachea of a dog with a Pravaz syringe is not dangerous, is easy and not painful.

2. The re-action of the entry of fluids is cough. This can be diminished by warming the fluids, by narcosis, and by custom.

3. The volume of the introduced fluid may be for a dog 750 gr.

4. Efficient fluids are sublimat., 1 : 5,000; acid bor., 5 : 100; acid salicyl., 1 : 100.

5. By varying the position, the fluid can be introduced into every part of the lung.

6. The fluid pervades the alveoli, the peribronchial region, the bronchial glands and the kidneys.

7. The absorption by the lung is quicker than that of the tractus intestinalis, or of the subcutaneous tissues.

8. The lung can absorb in five days four times its own weight.

9. The effect of drugs is, therefore, quicker if they are introduced by the lungs than by any other way.

10. Injecting into the lungs is like injecting directly into the circulation.

The author hopes that it will be possible to use this method for the treatment of lung diseases.—*Journal of Laryngology and Rhinology*.

CHLORIDE OF METHYL: ITS USE IN NEURALGIAS.—Dr. Dudley Tait (*Kansas City Medical Index*) gives the following conclusions on the use of chloride of methyl in the treatment of neuralgic affections:

1. Chloride of methyl spray may be used with great advantage in all neuralgic affections; its sole indication is *pain*.

2. It can be successfully resorted to in view of eradicating *pain* in the course of various pulmonary affections, in acute and chronic rheumatism, and also in affections similar to the writer's cramp, etc.

3. In trifacial neuralgia, precaution is of absolute necessity, but does not constitute a counter-indication.

4. One application often suffices; however, two, and exceptionally several, applications are necessary.

5. The majority of neuralgic affections are definitely cured by this treatment; success has sometimes been obtained in neuralgias symptomatic of Potts' disease, pelvic tumors, etc.

6. The slight and transient pigmentation that sometimes follows this treatment is of no importance; it disappears in the course of a few weeks.

7. Experiments seem to indicate that the analgesic properties of chloride of methyl are due to its action on the superficial terminal expansions of the nerves of the skin.

PEPTONE ENEMATA.—Ewald urges the more general introduction of peptone enemata. His researches have led him to conclude :

1. The power of the rectum to absorb is undoubted ; the amounts, however, which are absorbed vary greatly from influences not to be controlled and peculiar to the individual, so that a purely physical or chemical action, independent of nervous influence, which can be produced by the necessary means at will, does not exist.

2. The appropriateness of an albuminoid for rectal absorption is not dependent upon its richness in genuine peptone. Eggs which contain the smallest quantity of peptone are as readily absorbed, and even give a greater gain to the organism than peptones which have a double or quintuple amount of contained peptone.

3. We are able to produce with unprepared eggs, and still better after preparation with hydrochloric acid and pepsin, the same results which are obtained with purchased peptones, and at about one-half the cost.—*Therap. Monatshefte*, No. 3, 1887.

INCOMPLETE ABORTION IN TWIN PREGNANCY.—Dr. Stanley P. Warren, of Portland, Maine, reports a case of twin pregnancy in which one child was lost at three months, but its placenta remained to delivery of the other twin at term. The twin at term was a healthy, robust child, weighing three pounds. It is rare, if not unique.

Editorial.

THE BOARD OF CENSORS AND MEDICAL EDUCATION.

The semi-annual meeting of the Erie County Medical Society, held in this city June 13th, was a notable one. Rumors had been in circulation that the Censors intended to present a report which would afford an interesting subject for discussion. The capacity of this committee for aggressive work, whether such work was

just or otherwise, has been tried in the previous history of the society. At this meeting, the Censors entered upon a new field of official inquiry, and branched off into a long and justly-severe criticism of the ignorance prevailing among medical men, and the necessity of a good "English academical education, and a knowledge of Latin," for all applicants who aim to enter upon the study of medicine.

The recent examination held by the Civil Service Commission for the position of District Health Physician, opened the way for an exposure of the facts alluded to in this report. So great was their astonishment at the result of the aforesaid examination, that the Censors "deemed it their duty to take official action thereon, and report the same to the society." They further report that "they had gained reliable information that all the applicants" who made such a lamentable display of ignorance "were graduates of *recognized* medical colleges." They confess that nearly all of said applicants "have so signally failed in the attempt to pass the examination, and have shown such gross ignorance of medical science, and a *total* want of literary and classical education, their written work having been so poor and defective in spelling that on the first examination not one of them reached the lowest standard of sixty, set down by the Commissioners, that *all* were rejected." The Board of Health, in its mercy for the poor ignoramuses, requested the Examiners not to publish the names of the rejected applicants, fearing such publication might injure them in the estimation of the public.

In proof of this severe judgment, the report includes a letter written by one of these illiterate applicants, the grammar and orthography of which fully sustain the severe judgment they render.

The Censors further report that, "taking these deplorable facts into consideration, your Board have come to the conclusion that the by-laws of the Medical Society of Erie County have been disregarded and flagrantly violated by some of its members, in having admitted to their offices, as students of medicine

such applicants without the necessary certificates of the Board of Censors as prescribed for in our by-laws, or, on the other hand, the State Law, the charter of the medical college has been violated through its faculty granting a diploma to a candidate who has not produced a certificate of his preceptor, setting forth that he has studied medicine with him in compliance with the requirements embodied in the charter of every medical college in this State."

Finally, the Censors favor the bill, defeated a few years ago, establishing a State Board of Medical Examiners, as the only measure to correct the abuses heaped upon the public by certain diploma mills. Our readers will recall the favorable attitude of the JOURNAL towards this measure. We quite agree with the Censors in the opinion that the passage of this bill was defeated by some persons "actuated by mercenary motives and self-interest."

The report, from which we have quoted so largely, emphasizes three important facts, which have been long recognized by the the profession, viz. : (1) The illiteracy of many graduates in medicine ; (2) the commercial spirit controlling medical colleges ; (3) the necessity of a State Board of Medical Examiners. This confession constitutes an interesting chapter in the medical politics of this city. We recall some bitter experiences within the past few years connected with the County Society, and we are led to wonder as to the causes of the conversion of the Members of the Board of Censors to sound ethical and professional principles. The recognition of the facts forcibly brought out in this report actuated an influential body of medical men in the organization of the medical department of Niagara University, devoted to higher medical education. The flagrant abuses prevailing in certain schools were as great then as now. Indeed, some of the men, whose ignorance was displayed in the recent examination to a degree which made the cheeks of the Censors blush with shame, had unfurled the insignia of their profession to the breeze, under the seal of chartered medical schools, managed upon the principle of more graduates, more shekels to

the common treasury. The sensibilities of these gentlemen were singularly obtuse to questions of this character at that time, in view of the urgent necessity then existing to stamp out the organization of a rival college, which had been called into existence to rescue the profession from the disgrace of the very abuses of which they now complain.

In conclusion, we beg to bring out the facts which called forth the report upon which we have commented. The graduates whose ignorance amazed the Censors, were nearly all alumni of the Buffalo Medical College. We make two honorable exceptions, in the persons of two highly-educated medical men, who received their diplomas from Homœopathic colleges, both of whom passed the highest in the examinations; one received the coveted appointment, and the other failed only for the reason that he had not resided in the district the time required by law.

What a ridiculous position, in its relations to medical education, the Censors have placed the Buffalo Medical College, of which they are nearly all graduates, and for many years earnest defenders! Compare the results of this test of the work done for the profession, as brought out by the examination, with the work of Schools of Medicine with which they are not in affiliation, and which many affect to despise, and the comparison forms a judgment of an institution which, after nearly a half century of labor, is justly criticised in the house of its own friends.

In this connection, it may be said that, numerically, the alumni of Buffalo Medical College are in the ascendency in the County Society. Many of them have gained an honored position in the profession for their attainments and skill. It must be humiliating for men of such high character and conceded professional ability to recognize as fellow-alumni individuals plainly illiterate, and unworthy of the degree of Doctor of Medicine! Let us hope that this emphatic protest from a Society composed largely of its alumni, who have the interests of the profession and the college equally at heart, will awaken this corporation to a realizing sense of its duty to the profession and the public in the future administration of the trust reposed in it.

RESULTS OF THE UNILATERAL REMOVAL OF THE UTERINE APPENDAGES.

In the May number of the *American Journal of Obstetrics* there appears a lengthy communication from Lawson Tait, in which he gives the histories of twenty-six cases from whom he removed the uterine appendages upon one side only, out of the first one thousand he operated upon. Earlier in his experience he has advocated the removal of only such of the uterine appendages as he found diseased, thus leaving those that he found healthy. The results of this unilateral removal he has been able to observe, and he now has occasion to change his mind and advise the removal of both appendages, even if one is healthy. He has operated upon several a second time and removed the diseased tube, which at the first operation appeared perfectly healthy. Besides, several of the twenty-six died because they were not operated upon the second time, and the remaining eight of the twenty-six he is now satisfied need the second operation. His conclusion is more forcible to use his own language :

“So far as I know, the present contribution is the first and only evidence to be obtained on the subject, and it is quite likely that opinions may vary as to the conclusions to be derived from this, and I, for one, am quite prepared to admit that so far as it has gone by itself, it is not large enough to base any absolute conclusion upon. But the opinion which I have formed from it, and which I substantiated by more recent experience not yet mature enough for publication, and which has made an increasingly strong impression on my own mind, is, that if a patient is suffering sufficiently to justify an abdominal section for chronic inflammatory disease of the uterine appendages, and only one side found to be affected, the operation, to be of that lasting and complete benefit to the patient which we desire all operations should have, must be made bilateral. On such a point as this, of course, the desire of the patient must be paramount, as upon most others; and if a patient placed herself under my care for

such an operation, and made it an imperative condition that I should not, under any circumstances, remove the second set of appendages if they were found healthy, I should yield to her decision; but I should argue the question with her, and advise her not to subject herself to the risks of a second operation, as seems to be by far the greater tendency in unilateral operations. The list that I now present puts such incomplete operations in a very unsatisfactory light."

Reviews.

Practical Lessons in Nursing. The Nursing and Care of the Nervous and the Insane. By CHARLES K. MILLS, M.D., Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic and College for Graduates in Medicine; Neurologist to the Philadelphia Hospital; Consulting Physician to the Insane Department of the Philadelphia Hospital; Lecturer on Mental Diseases in the University of Pennsylvania, etc. Philadelphia: J. B. Lippincott Company. London: 10 Henrietta street, Covent Garden. 1887.

This book is the only one which treats of the care of the nervous. The first chapter is devoted to the care of hysterical and epileptic, as well as containing many useful hints on care of patients afflicted with chronic organic nervous diseases, sleeplessness, delirium, etc. Chapter second contains many useful hints on massage, movements and bathing. The other chapters are full of good suggestions in this much-needed field. It is well worth twice its price to any physician.

Handbook of Materia Medica, Pharmacy and Therapeutics, including the Physiological Action of Drugs, the special Therapeutics of Disease, official and extemporaneous Pharmacy and minute Directions for Prescription Writing. By SAMUEL O. L. POTTER, A.M., M.D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco; author of "Quiz Compends of Anatomy and Materia Medica," an index of comparative therapeutics and a study of speech and its defects; late A. A. Surgeon U. S. Army. Philadelphia: P. Blakiston Son & Co., 1012 Walnut street. 1887.

This work, as seen by its title, embraces much that is new to

the profession, including, as it does, well-written and concise articles on extemporaneous pharmacy, as well as official. The parts on physiological action of medicines is well-written and comprehensive. The portion of the book relating to special therapeutics of disease is especially valuable, as it is so concise and to the point. Taking it all in all, this is a book well worth having. Hence, we hope it will find a high place among the recent manuals of its class, as it has many merits and few, if any, demerits.

A Compend of Surgery for Students and Physicians. By ORVILLE HORWITZ, B.S., M.D., Demonstrator of Anatomy in Jefferson Medical College. Third edition. Revised and enlarged, with twenty-one illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street.

We have found occasion to speak highly of the entire series of Quiz Compendes as far as issued. This little work has met with such favor that already a third edition is demanded. The author has improved it in many ways. The chapters on anti-septic surgery, mortification and gangrene, urethrotomy, burns and scalds, venereal diseases, retention of urine and inflammation have been re-written, and brought thoroughly abreast of our present knowledge.

A Compend of Electricity, and its Medical and Surgical Uses. By CHAS. F. MASON, M.D., Assistant Surgeon U. S. Army, and CHARLES H. MAY, M.D., N. Y. Polyclinic. Philadelphia: P. Blakiston Son & Co., 1012 Walnut street. 1887.

This useful little work is No. 3 of the "Medical Brief" series. It presents a short yet clear view of an important and generally ill-understood branch of therapeutics. A mastery of the facts and principles here taught will serve as an admirable introduction to the study of the larger works on this subject.



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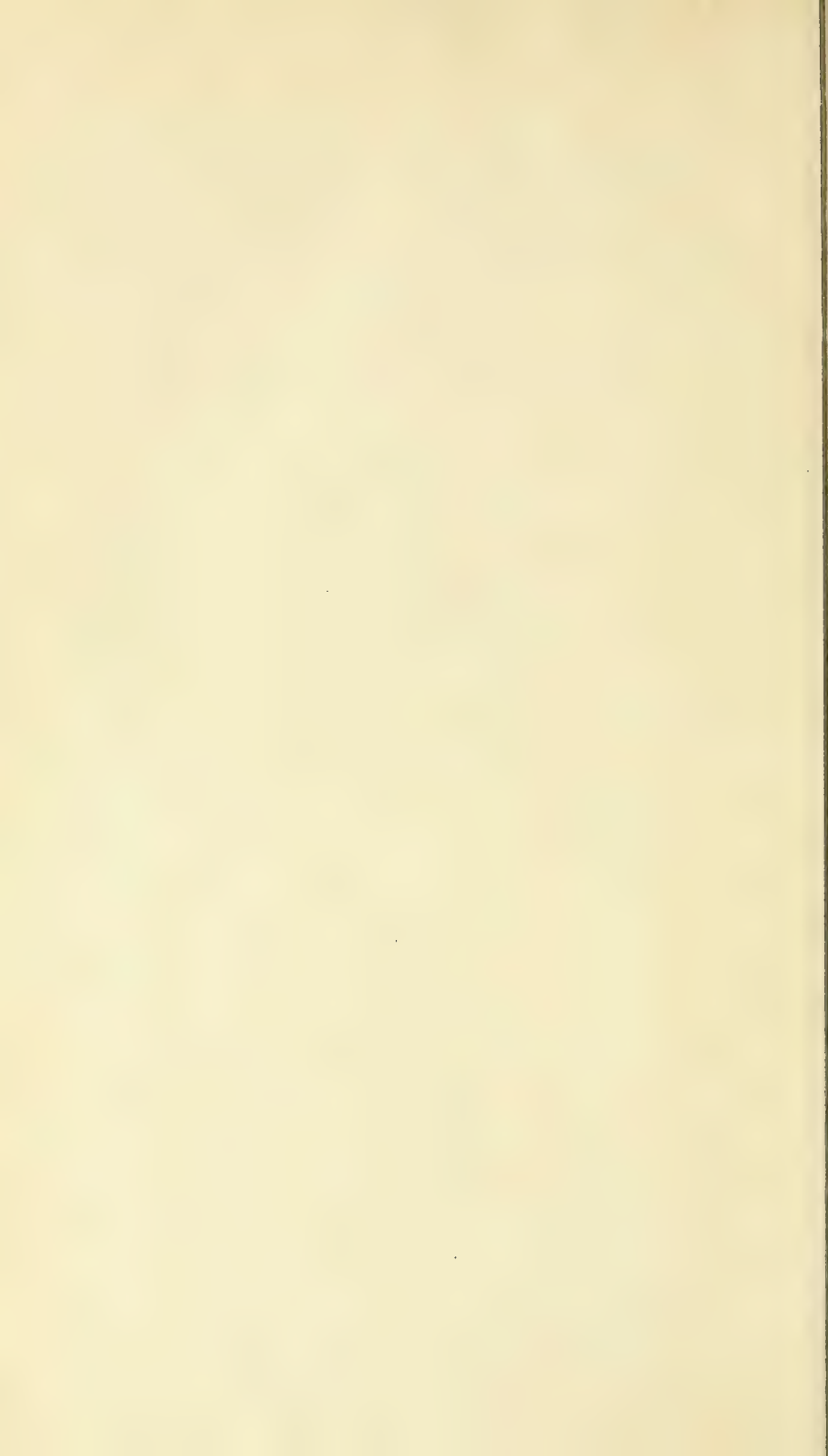
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